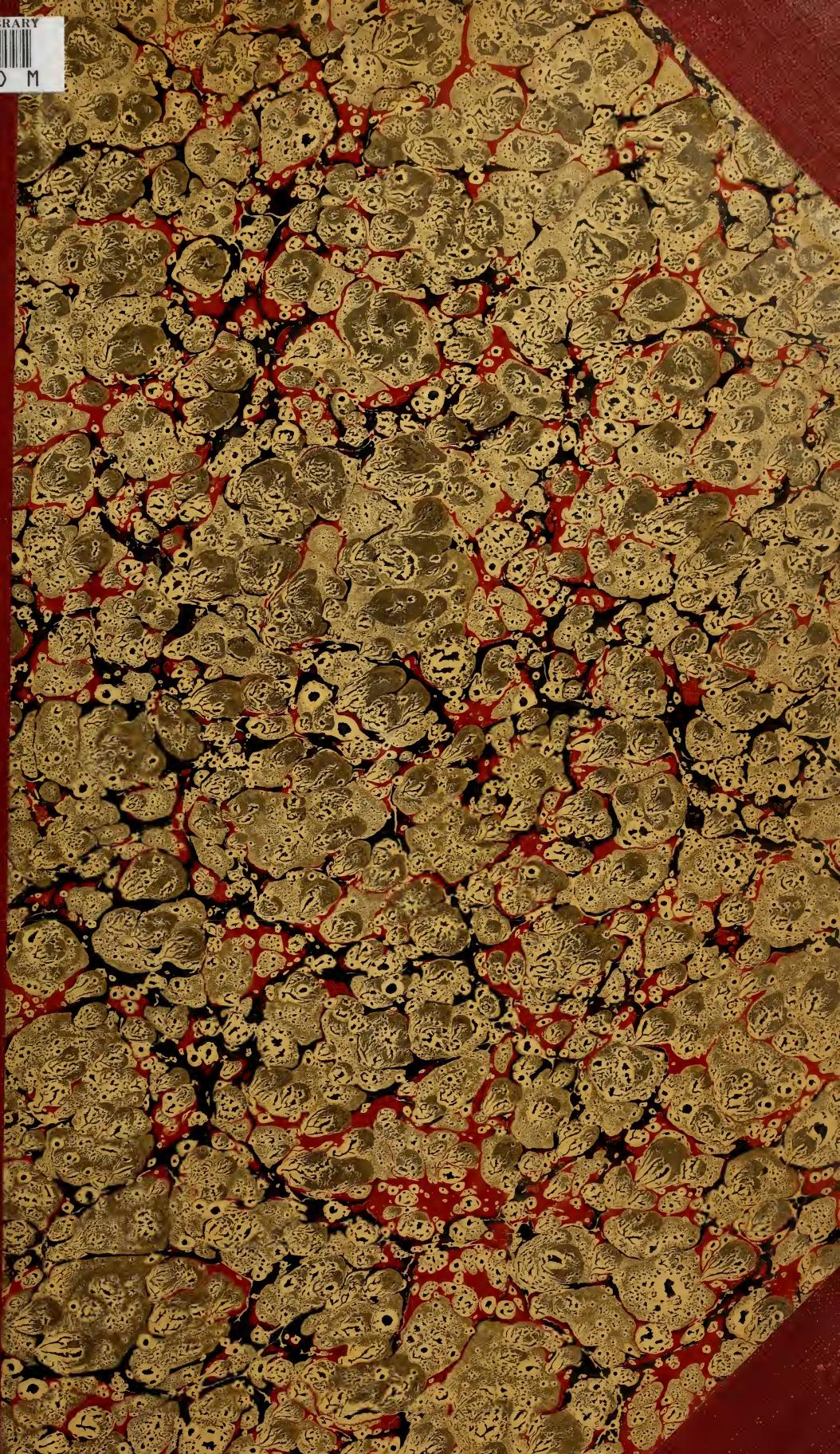


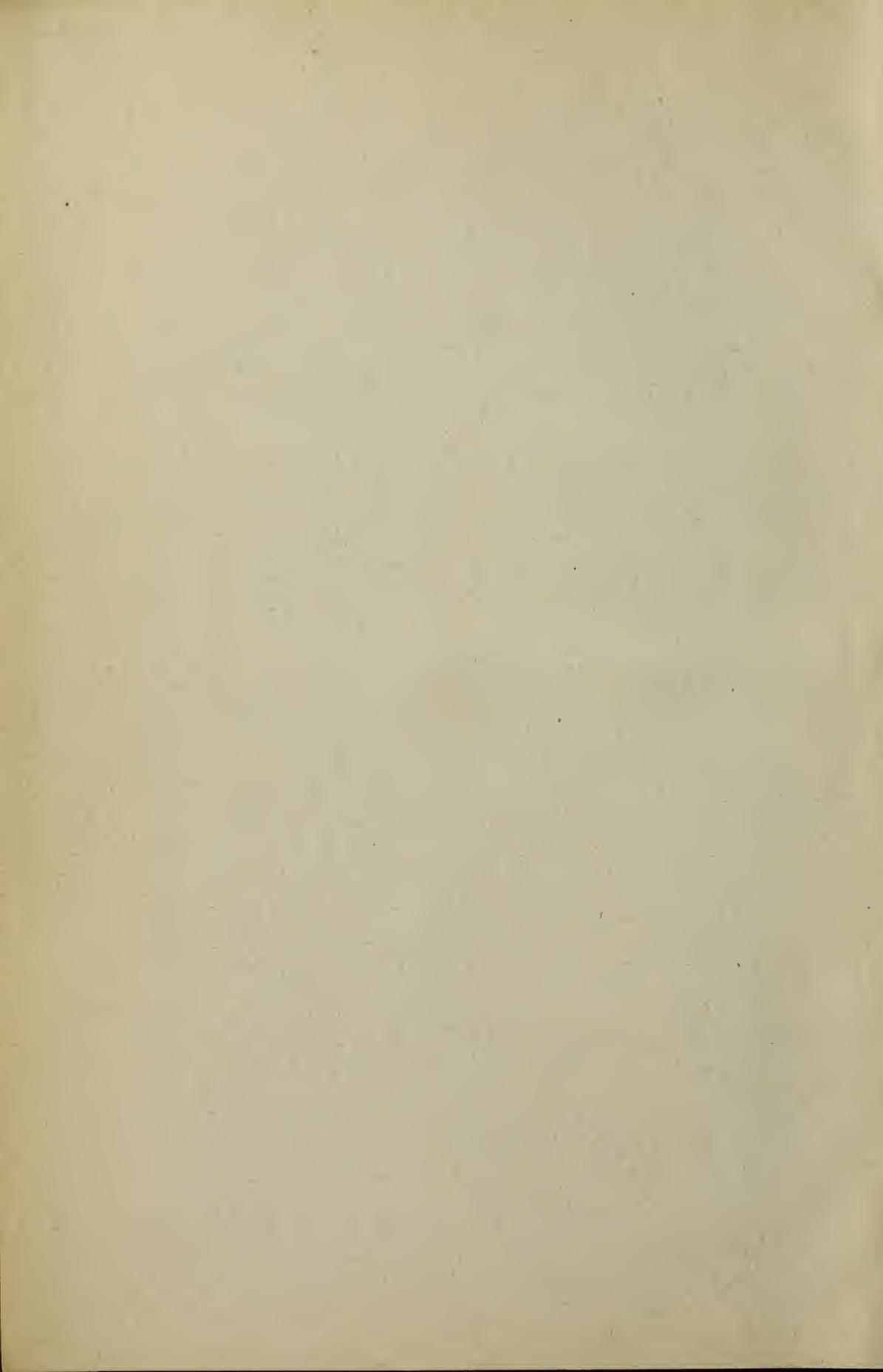
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THE JOURNAL



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No. 1

THE INTERNAL SECRETIONS—SOME CLINICAL ASPECTS ILLUSTRATED *†

BY WILLIAM SEAMAN BAINBRIDGE, A. M., Sc. D., M. D., C. M.,
New York City.

The Talmudic belief in the usefulness of all created things has received therapeutic endorsement in practice from the beginning of time to the present day. The Hebrew prophets sang: "The Holy One, blessed be He, created nothing in the world without a purpose. He created the snail or leech as a remedy for contusions; the fly for the sting of the bee; the gnat for the bite of the serpent; the serpent for the cure of the scab; and the lizard for the sting of the scorpion."

The literature of all nations and all times seems to contain allusions to the use of "created things" in the treatment of disease. Not only herbs and roots, insects and birds, fishes and animals, but man himself has furnished ingredients for the broth or decoction, powder or poultice, with which the sick have been treated. "Hardly an animal," as I have said elsewhere, ‡ "has escaped making its

*Oration in Surgery, presented, by request, before the Annual Meeting of the Maine State Medical Society, Poland Springs, Me., June 9, 1915.

†One of the purposes of this paper is to emphasize the importance of the admonition; "Stop; look; listen!" as applied to many obscure and seemingly trifling conditions, some of which have only recently come to be considered as pathological states, calling for early diagnosis and treatment, surgical or non-surgical, or both. While the subject of the physiology and pathology of the internal secretions is being evolved by the many investigators who are directing attention to it, the clinician, in whatever special field engaged, should be on the alert and not dismiss with careless indifference cases which he or some of his confreres might possibly save from a life of incompetency and suffering.

‡Bainbridge.—The Cancer Problem, 1914, p. 2.

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contribution, in hair or hide, tooth or toe-nail, thymus or thyroid, liver or spleen, in the tireless search of man for a means of relief. The hand on the dial has turned many times to the same point of effort during the progress of the centuries."

Many a time in her march forward, Medicine, the offspring of the Superstition of the Past, has stood on her pinnacle of achievement and looked backward, with mingled awe and confusion, over the devious trail by which she has advanced.

The immortal Shakespeare, perhaps unwittingly, gave us a glimpse of the birth of Medicine when he led us, in fancy, with Macbeth, into the witches' cavern, when he revealed to us the cauldron, and let us hear the song of Hecate and her sisters as they danced and sang while brewing the witches' broth, with its

"Eye of newt and toe of frog,
Wool of bat and tongue of dog,
Adder's fork and blind worm's sting,
Lizard's leg, and howlet's wing."

It has been said that this masterpiece of poly-pharmacy, with its twenty-four ingredients, was suggested to the Bard of Avon, who was "a master in combining poetical fancy with devotion to fact," by his familiarity with the Dispensatory of Cordus. This book, the progenitor of all pharmacopeias, was published in Nuremberg about the middle of the sixteenth century. This celebrated compilation contained the "Mithridat," a product of poly-pharmacy which Mithridates the Great (about B. C. 134-63), King of Pontus, is said to have administered to criminals as an antidote for poisons which he had previously given to them. It is related that, after experimenting in this manner upon these unfortunates, he would take both poison and antidote himself, and that in this way he rendered himself immune to all poisons, of which he had an abnormal fear. This "antidote," with which his name is associated, subsequently became popular as a "remedy" for fevers. It is said to have been "not very complicated," and to have been "improved upon" by one of the body physicians of Nero. In this improved form, it contained *only fifty-five* ingredients! It was incorporated, with additions, in the Dispensatory of Cordus, with which Shakespeare is supposed to have been familiar. Another of Nero's body physicians still further improved upon this decoction, adding flesh of snakes, and giving it the name "Teriac," or "Theriac," from the snake, "Tyrus." This body physician, Andromachus by name, who was likewise a poet, dedicated a poem to Nero in which he enumerated all the ingredients of this royal remedy. The "Theriac" of Andromachus, we are told, was to be found in the Pharmacopeia Germanica of 1882. The "Theriac" of the Dispensatory of Cordus

contained sixty-four ingredients, but by the time it reached the Pharmacopeia Germanica it had been reduced to twelve. Doubtless the witches' broth was inspired by the un-expurgated prescription for this celebrated remedy.

In the dispensaries and pharmacopeias of the sixteenth century were mentioned such animal products as "distillates of capon and pullet;" wolf liver; fox lung; deer spine; inner membrane of chicken stomach; sheep's wool; toothed jaw of pike; rabbit's hair and foot; gallstones of ox; ashes of swallows, sparrows, scorpions and centipedes. The pharmacist of that time, according to accounts, had to keep in stock "poor sinner's fat," "cranium humanum," "oleum ossium humanorum," and other products which may be said to have foreshadowed the organic therapeutic preparations to be found in the pharmacy of today.

It goes without saying that all this was empirical; yet the ancient Egyptians, the Persians of the time of Susruta, the Greeks and Romans of the times of Hippocrates, Pliny, and Galen, who employed healthy animal tissues, organs or secretions, in the treatment of disease, must have had some conceptions which suggested, however vaguely, the possibility of the presence in certain organs of substances which might exert a regulatory influence upon the functions of similar organs and of the body as a whole.

Thus we see that the relatively new science which deals with the study of the internal secretions and their effects may be traced far beyond Brown-Séquard, and his organo-therapy, beyond Claude Bernard and Berthold, who laid the foundation for the scientific study of the ductless glands; still further backward to Susruta, Galen, Hippocrates, and others of our medical forefathers who, in the distant past, foreshadowed endocrinology, hormone-therapy, hemadenology, or the study of the internal secretions, by whatever name the science may be called.

It was not, therefore, a perfectly new idea which Berthold, Claude Bernard, and Brown-Séquard suggested and elaborated, when they declared their belief in the physiological influence exerted by the secretions of the ductless and other glands.

Much of the primitive and entirely empirical conception of the treatment of disease by means of animal tissues was the result of the age-long and world-wide search for the Fountain of Perpetual Youth—"perpetual youth" meaning to the Ancients very largely a matter of the maintenance or restoration of sexual vigor.

It is not to be wondered at, therefore, that perhaps the earliest and most conspicuous reference to organo-therapy related to the use of the orchitic substance in the treatment of impotence, credited to

Susruta, the Persian, who lived about a thousand years before Christ. It is also recorded that the ancients sought to convey to human beings characteristics of certain animals by the administration of fresh organs of the animal. For example, the testes of the fox, the liver of the wolf, the lungs of the deer, were given when the distinguishing characteristics of these animals were desired. Pliny is said to have recommended something like fifty preparations from the hyena for as many different ailments.

All the early ideas concerning the use of animal tissues or organs were without scientific basis, and were as entirely empirical as was the use of "black draught," "witches' broth," "green-frog poultice," "boiled puppy decoction," and like remedies in the treatment of cancer. They are none the less interesting illustrations, however, of the pointing of the hand on the dial to "the same point of effort" in the search for truth.

It was not until the experiments of Brown-Séquard with testicular extracts, which he administered to himself and some of his co-workers, that the theory of the existence and function of the internal secretions was put to the test of a practical application. His work is familiar to all, and need not be recounted here.

Since the way was thus fairly opened by these early investigators, the ductless glands have been studied one by one, in turn, and the question of the possibility of an internal secretion applied to other organs and tissues, until there has developed what may justly be termed a new science. Not only does this embrace the study of the internal secretions of the various glands and organs, but it involves also the study of the correlation of the functions of these organs with others and with the body as a whole, together with the utilization of the healthy glands or their secretions in the treatment of diseases, special and general. It likewise includes the surgical removal of the diseased gland, in full or in part, and the homoplastic or heteroplastic transplantation of healthy organs or parts thereof, in the effort to preserve their function or to offset the interference therewith by disease.

Growing out of the knowledge thus developed has come the recognition of the need of systematized study. To this end clinics have been established for the investigation of the diseases of the ductless glands *per se*, and for the study of the relations of the internal secretions to general diseases and diseases of special organs, among which the ovary will receive conspicuous attention. One such clinic has been established in Paris, under the patronage of Baron Henry de Rothschild, and under the direction of Doctor Leopold-Levy; another in Philadelphia, at the Charity Hospital, under the direction of Dr. Sajous.

With this crystallization of effort into actual clinical observation upon many and diverse conditions, it is to be hoped that the confusion and the contradictory evidence which now clouds so many of the issues concerned, will be cleared away, and that in the near future the relations and correlations of the internal secretions will be reduced to the category of established scientific fact. Perhaps, too, light will be thrown upon certain diseases and conditions, the etiology of which is still obscure. Cancer has already been suggested as one of the disease enigmas which may possibly be solved in part by a clear comprehension of the role or roles of the internal secretions. So, too, with chronic intestinal stasis and some of the conditions associated with it. Many questions of metabolism will undoubtedly be more clearly comprehended when a fuller knowledge has been obtained concerning the ductless and other glands and their secretions.

Biedle, who has devoted so much study to the subject under discussion, calls attention to the fact that the oldest, and undoubtedly the most valuable, information concerning the internal secretions is that which is derived from clinical observation. In accordance with this idea, I shall pass in brief review some of the clinical manifestations of disturbance of the functions of the glands of internal secretion, illustrating these, as fully as possible, out of my own experience or that of others, dwelling upon certain phases of the subject which have a practical clinical bearing.

It would be impossible to give, even in very brief outline, the experimental work which substantiates the clinical observations and conclusions with reference to the conditions under consideration. Nor would it be expedient, in this contribution, to endeavor to classify the clinical manifestations of perversion of function of the internal secretions according to the organs or systems of organs chiefly involved. Indeed, the correlation of the functions of the different organs is so close that complete differentiation and separation is practically impossible. The clinical manifestations of perverted function of the internal secretion of one organ are sometimes difficult to differentiate from similar results following disturbed function of another.

Examples of the oldest and most familiar clinical observations with reference to perversion or loss of function of organs supposedly having a regulatory influence over development, health, and even life, may be found in the study of the effects of castration upon man and animals. Clinical observations in this regard have been supplemented by a large number of interesting experiments upon animals. Some of these have been in the nature of indirect proofs, as it were, having for their purpose the determination of the effects of castration, thus by inference, learning the influence of the healthy organs upon the or-

ganism. Others have been indirect, seeking to ascertain the effect upon castrated animals of the transplantation of ovarian or testicular tissue from their normal habitat to another situation in the same body or from another animal. Likewise, a long series of investigations, clinical and experimental, have been conducted to determine the effects of preparations of these glands, administered under different conditions of health and disease, normality and abnormality.

The extensive observations upon animals, as well as clinical observations upon human beings, have established the existence of close connection between the generative glands and development, and it is held by many that practically no organ or tissue of the body is free from influence of this origin. It is conceded, however, that no one gland controls development or maintains health. The present state of our knowledge does not permit of a clearly defined statement concerning the extent of the control exercised by each gland or organ coming within the scope of this discussion.*

OBESITY OF ADIPOSIS.

(Hypo-endocrinism.)

(Figs. 1 to 9.)

One of the most conspicuous illustrations of perversion of function and confusion of results of such perversion may be found in certain forms of obesity. The well known effect of castration which manifests itself in a deposition of adipose tissue, has its parallel, at least to a certain extent, in the tendency toward the assumption of fat after the menopause, in both males and females. In like manner it is held that perversion of the function of the sexual glands (ovaries and testes) presumably due to hypoplasia, manifests itself in some forms of obesity of childhood. It is difficult, however to differentiate between obesity of genital origin and that provoked by changes in the hypophysis cerebri or pituitary gland, first described by Frölich, in 1901.

Dystrophia adiposa-genitalis (Frölich's syndrome) is the term applied to the syndrome characterized by accumulations of fat and disturbances of the genital functions. This condition is supposed by some investigators to be due not only to pituitary tumors, but to tumors

*Whenever, in the text or in the appended table, an interrogation point appears, it signifies lack of definite knowledge as to whether the abnormality of the given endocrinous gland is one of hypo- or hyper-function; or some other point upon which there is no conclusive opinion.

**For captions of all pictures, see pp. 505 to 507.

at the base of the brain. Some hold, with Fischer, that the condition is due to disturbance of function (deficiency) of the posterior lobe; others, with Cushing, that the anterior lobe is the part involved.

Obesity of a pathological character has been traced by Marburg and Hempel to disturbances of function of the pineal gland. It has not been definitely determined, however, whether this is due to hypo- or hyper-function of this gland. In a case of carcinoma of the pineal body reported by Hempel, marked obesity, noted at the beginning, was followed by extreme atrophy of the adipose tissues.

Sprinzles has noted a pathological type of obesity in thirty-three cases in which he found enlargement of the parotid gland. The accumulation of fat in these cases involved chiefly the face, breasts, and abdomen. From these and similar observances it is inferred that the parotid glands may come within the category of endocrinology. The relation between mumps and orchitic enlargement in some cases is cited in substantiation of this idea.

Adiposis dolorosa (Decum's disease), a form of painful obesity, is usually found in women. (Fig. 6). The etiology of this condition is still obscure, and may be cleared up through the further study of the internal secretions.

It is held by some that hypo-oöphorism frequently results in hyperpituitarism, this combination of internal secretory disorders favoring suboxidation of fat, and consequent obesity.

From the above it has been seen that the glands of internal secretion generally supposed to be associated with obesity are the genital glands (ovaries and testes), the pituitary, and the pineal, and that the condition is the result of hypo-function or ablation of function. The secretion of other organs may be involved, and for this reason some advocate the use of "polyglandular" preparations in the treatment of these disorders. It may be said, however, that the treatment of cases of pathological obesity, like many other conditions resulting from disorders of the endocrinous organs, is largely empirical, an example of which may be found in the administration of thyroid extract in these cases. When given without careful consideration of the individual case more harm than good may result from organotherapy.

When cases of marked obesity present themselves in practice it behooves the clinician to seriously study the case to ascertain whether there is not a definite pathological history, or whether the accumulation of fat is merely the result of an acquired or inherited tendency toward obesity, and to administer treatment accordingly.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7

EMACIATION.

(Progressive Muscular Dystrophy.)

(Hyper-endocrinism.)

(Figs. 8 to 9.)

The conclusion might be reached by inference, without careful consideration, that if hypo-endocrinism involving one or more glands of internal secretion leads to general or localized accumulations of adipose tissue, the opposite condition or function, hyper-endocrinism, must lead to loss of adipose tissue. We know that the antithesis of the fat subjects may be found in the lean ones. The "fat lady" has for a side-show companion, in some instances, the "living skeleton." The various muscular dystrophies, including progressive muscular dystrophy or atrophy, have long puzzled clinicians, and their etiology has not been satisfactorily cleared up. It is probable that further study along the lines of endocrinology may throw light on the etiology, and suggest a definite line of treatment by which the unfavorable prognosis which has always applied to these cases may be rendered more hopeful. The extreme cases shown in the pictures are pitiful evidences of lack of knowledge on the part of the medical world.



Fig. 8



Fig. 9

OSSIFICATION.

(Hypo-endocrinism?)

(Fig. 10.)

Another type of "living skeleton" is represented in Fig. 10. The bony framework, in these cases, is primarily involved and the muscular system secondarily. The cases are extremely rare, and naturally the etiology is little understood. It is thought by some that the condition may be accounted for on the basis of disturbance of function of one or more of the ductless glands. The picture represents the condition as exemplified in a museum adjunct who was long familiar to circus devotees. A similar case has recently attracted the attention of the medical profession in a western community.

The organs most concerned, presumably, in the disturbances of the osseous system, are the sex glands (gonards) and the thymus.



Fig. 10

OSTEOMALACIA AND PSEUDO-OSTEOMALACIA.

(Hyper-endocrinism?)

(Fig. 11.)

Hyper-oöphorism is supposed by some investigators to account for the condition of the bony structures known as osteomalacia, or softening of the bones. So convinced have some become of the production of this condition by oversecretion on the part of the ovaries that castration is recommended as a cure. Others, considering this too radical a procedure, recommend the administration of pituitary and adrenal extract, or preparations from other glands, as the thyroid. Until the gland or glands involved are more definitely determined, and the particular manifestation of abnormal function thereof ascertained, such medication must of necessity be empirical. The subject is worthy more extended study, and may lead to a solution of the etiology and treatment not only of osteomalacia and pseudo-osteomalacia, which is a pronounced form of rachitis, (Fig. 11) but of rachitis as so often encountered in practice among children, and perhaps, likewise, of rachitic dwarfs.

A good deal of attention, in this connection, is being devoted to the thymus, largely, of course, in animal experimentation.



Fig. 11

PRECOCIOUS OLD AGE (PROGERIA).

(Hyper- or Hypo-endocrinism?)

This is a rare and peculiar condition, to which Mr. Hastings Gilford of London gave the name "progeria" when describing a case in a boy, fifteen and a half years old. (*Practitioner*, August, 1904). Fig. 12 shows the condition in a girl eight years and three months of age. This case was reported by C. W. Rand (*Boston Med. and Surg. Jour.*, July 16, 1914). Sajous (*New York Med. Jour.*, March 20, 1915), reviews these cases, and attributes the cause of the condition in part, at least, to the thymus. Growth is arrested or delayed, and senile decay rapidly ensues.



Fig. 12

UNUSUAL DEVELOPMENT OF HAIR (HIRSUTIES).

(Figs. 13 to 17.)

An unusual development of hair, or the development of hair in unusual parts of the body, presumably indicates some abnormality. It is certainly often noted in mental defectives of different types. Figs. 13 to 17 illustrate some of these.



Fig. 13

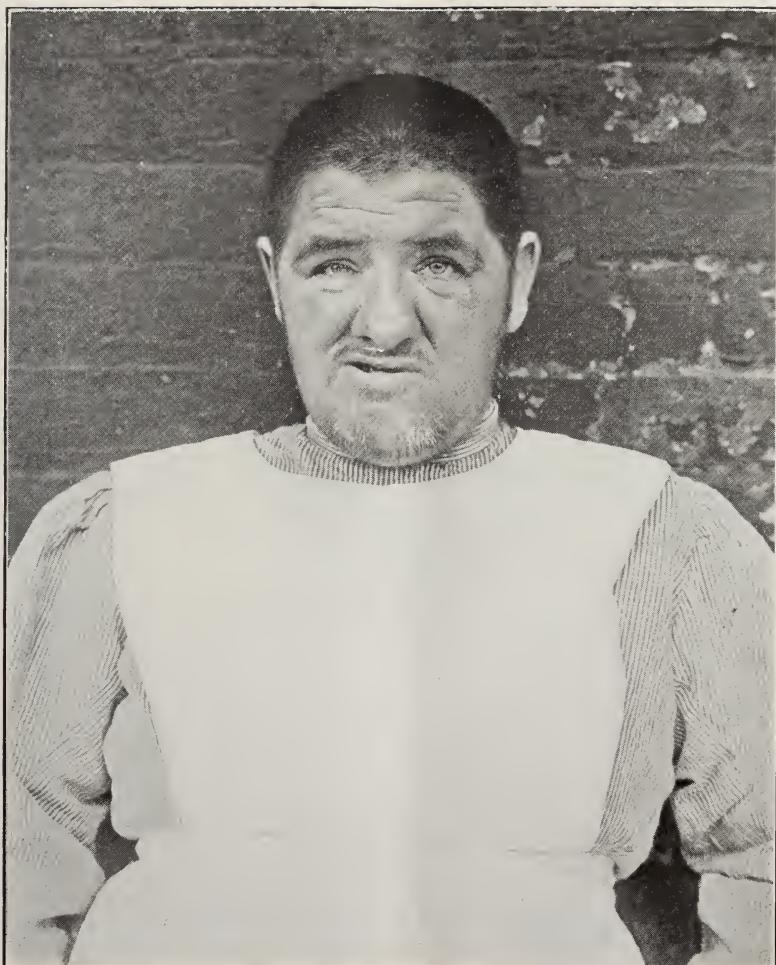


Fig. 14



Fig. 15



Fig. 16



Fig. 17

DWARFISM — MICROSOMIA.

(Hyper- or hypo-endocrinism?)

(Figs. 18 to 20.)

The fact that the surgical removal of the anterior lobe of the pituitary body in young animals has led to arrest of development has given rise to the theory that all forms of dwarfism are due to disturbances of function opposite or antithetical to those which are supposed to cause gigantism.

Inasmuch as dwarfs seem less obviously pathological than do their tall fellows, the giants, less study seems to have been devoted to discovering the cause of their lack of size. So-called "true dwarfs," (Figs. 18 and 20) who seem bright, many times talented, and altogether fairly well satisfied with their lot, do not call for so much thought. The other type, however, the "rachitic dwarf" (Fig. 19), who are so irregularly developed that they may be called pathological, deserve more careful study than seems to have been devoted to them, particularly in the light of what endocrinology has taught and is teaching in greater measure as the study is pursued.

In addition to the types of dwarfs illustrated, there are many other dwarf or pygmy individuals and races, among which may be mentioned the various inhabitants of Africa. There is little reason for believing that these under-sized persons are of necessity pathological specimens in any regard.



Fig. 18

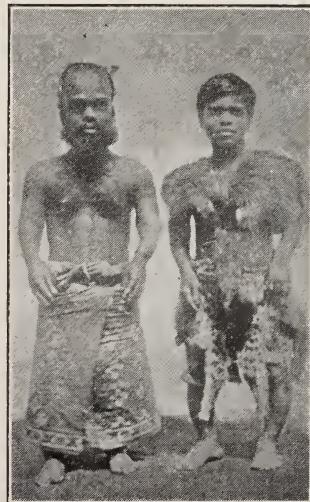


Fig. 19

GIGANTISM — ACROMEGALY.

(Hyper- or Hypo-endoerinism?)

(Figs. 20 to 21-b.)

Acromegaly is generally considered as the result of perversion or ablation of function of the pituitary gland, though investigators are not agreed as to the character of the pituitary abnormality. Marie, who first associated the clinical condition with the pituitary body, held that acromegaly is the result of destruction of the gland, and consequent complete loss of its function. The opposite view, however, that acromegaly is due to hyper-function of this gland, seems to have come into more general acceptance. Fig. 20 illustrates the relative size of giantess and dwarf. Fig. 21 is another giant, the celebrated Irish giant. Fig. 21-a represents a case of acromegaly not associated with giantism. Fig. 21-b shows the progressive enlargement of the hands in acromegaly.

In this condition, as in all others due to disturbance of function of endocrinous organs, the pathological state seems to be the result of disturbance not of one, but more than one of the glands of this system. According to Biedle, "The whole of the anatomical material which we at present possess points to the hypophysal tumour, and consequent increased hypophysal internal secretion, as the causative factors in the production of the symptom-complex of acromegaly. The weightiest argument in support of this theory is the fact that, in all cases where hypophysal tumour is associated with acromegaly, the tumour is composed of true hypophysal tissue." This author further says: "From the nature of the evidence, it appears unquestionable that the hypophysis is the site of origin of acromegaly, and that the nature of the illness is dictated by hypersecretion on the part of that organ. But the question as to whether we are to regard the pathological condition of the hypophysis as primary, or merely as the secondary result of organic affection in other parts of the body, remains unanswered. The latter assumption is permissible, for numerous experiments have shown that there is a physiological interrelationship between the hypophysis and other internal secretory organs, namely, the thyroid, thymus, suprarenals, and especially the sexual glands. Moreover, pathological conditions of these organs are associated with profound changes in the hypophysis."

Because of the presumptive poly-glandular origin of acromegaly, the condition has been treated with poly-glandular preparations. However, any organotherapeutic measures in the treatment of this condition must be considered as more or less empirical. Surgery has been invoked in the treatment of cases presumably due to hypopyseal tumors.

With reference to the so-called "true giants," who, like the "true dwarfs," are supposed to be congenitally so, and to develop symmetrically, though on an enlarged scale, Biedle says: "It is only the giants of fairy tales who, in addition to their size, are favoured with exceptional physical and mental advantages. A closer acquaintance with the giants of our day, as well as a careful analysis of the descriptions which have come down to us of the giants of old, shows that normal giants—that is to say, persons of exceptional size and free from deformity or other pathological signs, such as were assumed by Langer, and later by Sternberg—are very rarely encountered. The vast majority of giants are undoubtedly abnormal and belong to the class of pathological individuals." This fact probably led one of our popular medical writers to present "The Long Giant and His Short Story."

This abnormal condition has been described as follows by Biedle: "Gigantism is the acromegaly of the period of growth, acromegaly the gigantism of the adult stage; acromegalic gigantism is the result of a pathological process, which commences during the period of growth and continues on into the period in which growth has ceased."

Organo-therapy has proved unsatisfactory in the treatment of this condition, but further study may clear away the difficulties in the future.



Fig. 20



Fig. 21



Fig. 21-a



Fig. 21-b

GYNECOMASTIA, ETC.

(Hyper- or Hypo-endocrinism?)

(Figs. 22 and 23.)

Disturbances of the endocrinous system or systems are supposed to lead to many abnormalities of development and of function which time does not permit me to discuss in detail. One of these, gynecomastia, is illustrated in Fig. 22. Fig. 23 represents idiopathic idiocy with marked enlargement of breasts in a male. This and various other abnormalities of development have been grouped under the heading of "secondary pseudo-hermaphroditism," and are traced back to the "perversion of the stigmata of sex." Further study along the lines of endocrinology will doubtless clear up many of these obscure conditions, and may lead to ability to so treat these individuals that they may develop normally, both physically and mentally.

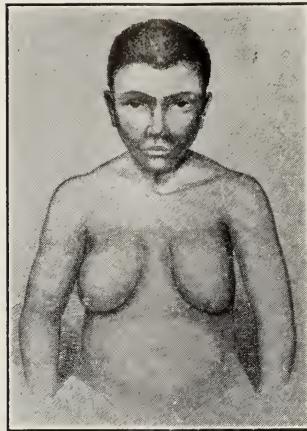


Fig. 22



Fig. 23

ADDISON'S DISEASE.

(Hypo-endocrinism.)

(Figs. 24 and 25.)

Addison's disease, characterized by brown pigmentation of the skin, results from the ablation of or interference with the function of the adrenal bodies by tuberculosis. This is illustrated in Figs. 24 and 25. The extract of the adrenal (total) is administered in the treatment of this condition, in accordance with the principles of "substitution therapy." Results have not been uniformly satisfactory, but cases are on record in which the pigmentation was diminished, the general condition improved, and the patient otherwise benefitted.



Fig. 24

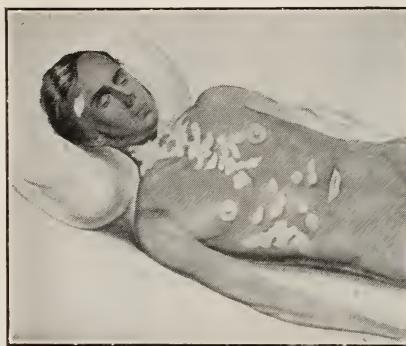


Fig. 25

HYDROCEPHALUS (CHRONIC).

(Hypo- or Hyper-endocrinism?)

(Figs. 26 to 28.)

This anomaly has been studied recently in the light of endocrinology. The order is reversed, however, in this instance, the abnormal condition (Figs. 26 - 28) is supposed to be the cause of the disturbance of function of the gland involved (pituitary), rather than the result of perverted function of the gland. In a recent article (Jour. Am. Med. Asso., January 30, 1915, p. 395) Pollock says: "The disturbance of pituitary function resulting from hydrocephalus may manifest itself in two conditions, hyperpituitarism (Neurath, Cushing, Oppenheim), or in hypopituitarism. In view of the frequency of dyspituitarism in chronic hydrocephalus, the literature on the subject is astonishingly scarce."



Fig. 26



Fig. 27



Fig. 28



Fig. 29

MICROCEPHALUS.

The opposite condition in point of size of the head—microcephaly—is shown in Fig. 29. These individuals, however, properly belong in the group of cretins, shown later.

HYPER- AND HYPO-THYROIDISM.

While the various other endocrinous glands—the thymus, the pituitary, the pineal, the ovary, the testis, the pancreas, and various other structures of the body—have been subjected to searching inquiry since attention was specifically directed to them, and while the inter-relationship of these glands is accepted as a fact, perhaps the most far-reaching study has been devoted to the “monitor” of them all, the thyroid, “the keystone of the endocrinous system.” The literature concerning the thyroid and its functions and diseases is enormous, much of it, however, being contradictory and confusing.

Growing out of the interest which has been aroused by those who have given careful and painstaking study to this gland, there has arisen an empirical “thyroid-therapy” which is made to apply to a large proportion of human ailments. This has led to a considerable degree of skepticism along lines which might justly be given serious attention. With more or less vague ideas concerning the functions of this organ, naturally an indiscriminate application of organo-therapy in the treatment of disorders of the gland itself, and particularly of disorders of other structures by means of thyroid products, is conducive to perhaps more harm than good.



Fig. 30

HYPERTHYROIDISM.

(Figs. 30 and 31.)

The most familiar, and the most important, result of excessive thyroid secretion (according to the generally accepted views, which, however, are disputed by some), is exophthalmic goitre, "Graves' Disease," "Basedow's Disease," or, as I prefer to designate it, systemic goitre. Various other conditions, notably dementia praecox, have been attributed to hyperthyroid function.

In view of the fact that the exhibition of symptoms due to the introduction of thyroid toxins into the system characterizes the clinical picture in cases of exophthalmic goitre (Figs. 30 - 31), the term "systemic goitre" appears to me to be a fitting designation for this disorder, which is apparently of true autotoxic origin. This term is therefore employed as a synonym for hyperthyroidism and dysthyroidism—increased or perverted thyroid secretion affecting the entire body, with local enlargement of the thyroid gland as a matter of secondary importance.

According to the majority of modern investigators, more particularly operating surgeons, headed by Kocher, this disease is due to an increased activity of the thyroid or an abnormal function, or a combination of increased and perverted glandular function. Lane holds that the disease is the result of the absorption of effete products from the intestinal tract, in cases of chronic intestinal stasis. Others have interpreted the condition as a dysthyreosis, through iodin poisoning, the organ having lost the capacity of storing the iodin as iodothyryin, in the normal manner.

The manifestations of the malady are usually charged to the excessive functional activity of the gland. The onset in most patients is insidious, but it may be acute, especially after violent emotions, and it can usually be shown that a neurasthenic or hysterical stage has preceded the development of the symptoms.

Although there exist theories in plenty concerning the mutual relations between the thyroid and other glands with an internal secretion, such as the parathyroids and the suprarenals, the available data are still too unreliable and contradictory to justify a prolonged discussion of these teachings. A number of facts have also been ascertained, without definitely establishing the part played in goitre cases by the thymus, which during the time of its physiological development represents a vital organ of special significance for the nervous system. Hypertrophy of the thymus in these cases is probably a compensatory process, an excess of which may in turn involve dangers for the organism. The mutual relations between the thyroid, the pancreas and the suprarenals, have been explained as being of an inhibitory char-



Fig. 31

acter between pancreas and thyroid, while the relation between the suprarenals and the thyroid has been interpreted as antagonistic by some, and as synergistic by others.

Through the better understanding of systemic goitre and the improved technic, the surgical treatment of the disease has been so greatly advanced in the last twenty years that after a long period of hesitancy operative intervention is now very widely recommended in these cases. There are many, however, who still prefer to employ the bio-chemical measures first, and, failing with these, to resort to operation. With the improved methods of inducing anesthesia, many cases can now be subjected to surgical treatment under general anesthesia which were formerly considered contra-indications to treatment by this method. Others prefer local anesthesia, a method which I have found eminently satisfactory in many instances.



Fig. 32



Fig. 33



Fig. 34



Fig. 35

HYPOTHYROIDISM.

(Figs. 32 to 62.)

According to Hertoghe there is hardly a symptom or symptom-complex which cannot be traced to the incomplete function of the thyroid gland. "If we knew exactly," he says, "the function of the thyroid gland we would no doubt be able to deduct immediately the symptom of a diminished or impoverished secretion, but we do not. However, we know something. We know that without the thyroid stimulus no cell, whatever it may be, can attain its morphological work, muscular, nervous, connective, glandular, or bone. The proof thereof is that a child born with congenital want or a child deprived completely by an operation of its thyroid gland does not grow, or grows very little. Give it a few doses of thyroid extract and it will begin to develop; stop the supply and immediately progress is stopped." "We know something more," he continues. "When a cell has done its duty for some time it decays, it is no longer desirable. It must be taken to pieces and eliminated through various channels—bowels, kidneys, lungs—especially under the form of urea. When thyroid supply is scarce the

carrying away of the cellular waste matter is slow and incomplete—mucin, fat, and other principles accumulate on the spot, and there form an infiltration and edema of a special kind—hard, non-depressible—and therefrom comes the name myxedema." According to Hertoghe, infiltration is the constant lesion of thyroid deficiency. It may be slight, as in "benign hypothyroidism," or "myxedema fruste," or it may be marked, as in severe myxedema—but it is always there.

Summing up the matter, Hertoghe says: "When you encounter the association of one or more of the following symptoms: Trophic changes in hair, eyebrows, eyelashes, teeth, or gums; an habitual chilliness, biliary disturbances with lithiasis, dyspnea with asthmatic attacks; menorrhagia, recurring abortion, hemophilia; melancholia, depression, weariness of life, migraine, vertigo, sudden loss of consciousness, noises in the ears; somnolence, rheumatoid changes in the muscles, ligaments, or aponeuroses; nocturnal incontinence of urine, pollakiuria, loss of appetite and obstinate constipation—think of a possible deficiency of the thyroid secretion."

In the treatment of hypothyroidism two methods, in line with endocrinology, have been employed; the administration of thyroid extract, and the transplantation, into the body of the subject, of healthy thyroid tissue from another person or animal. I began working along the line of transplantation in 1900, employing the gland from the human, when available, and from the sheep. Some of the cases are illustrated herewith.

Thyroid insufficiency in early life manifests itself in cretinism, illustrations of which are given in Figs. 32 - 44. Other forms of hypothyroidism are shown in Figs. 45-48.

While, as we have seen, many conditions are concerned with thyroid insufficiency, the commonest and most clearly understood of those seen in the adult is myxedema, of which the following pictures are illustrations. (Figs. 49 - 62.)

With the ages of empiricism back of us, and with the prompt sensationalizing of the theories and achievements of Brown-Séquard and his co-workers, it is not to be wondered that the scientific study of the internal secretions and their effects has been buffeted from the pillar of organotherapeutic charlatany to the post of scientific skepticism. During the years immediately following Brown-Sequard's first efforts a few serious workers, refusing to be discouraged by the unsatisfactory publicity with which his pronouncements had been received, continued along the lines indicated, and the ranks of these increased year by year, until at the present time, such an army of investigators is in the field that there is reason to hope for a speedy clearing away of all that yet obscures the question of hormones and hormone therapy.



Fig. 36



Fig. 37



Fig. 38



Fig. 39



Fig. 40



Fig. 41



Fig. 42

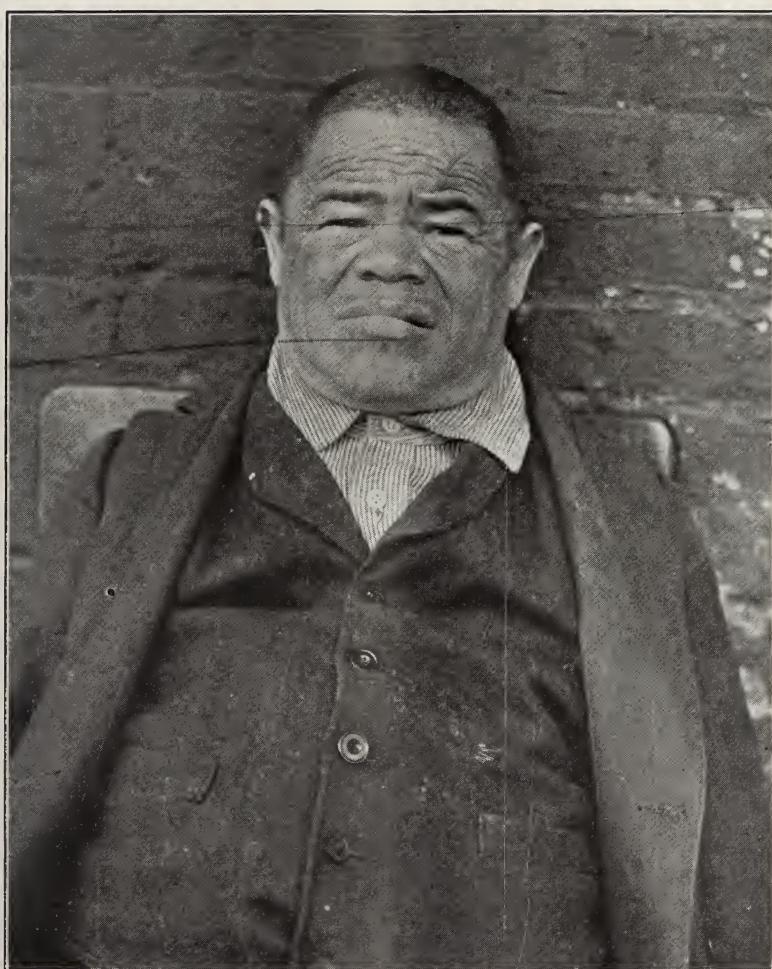


Fig. 43



Fig. 44



Fig. 45



Fig. 46

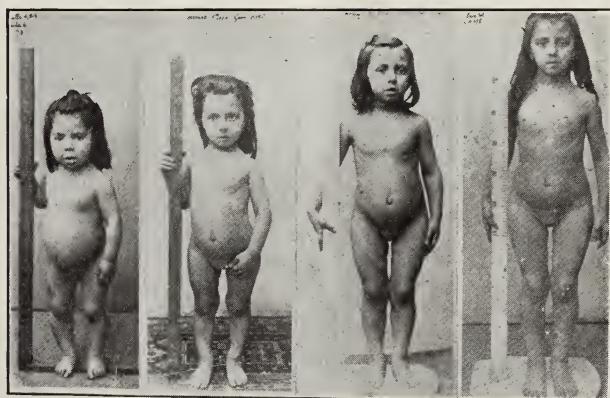


Fig. 47



Fig. 48



Fig. 49



Fig. 50



Fig. 51



Fig. 52



Fig. 53



Fig. 54



Fig. 55



Fig. 56



Fig. 57





Fig. 59



Fig. 60



Fig. 61



Fig. 62

TABLE OF ENDOCRINOUS GLANDS AND THE CONDITIONS
RESULTING FROM PERVERSION OF
FUNCTION*.

Gland	Function (Perversion of)	Condition result- ing from perva- sion of function.	Remarks
Thyroid	Hypersecretion	Exophthalmic Goitre	According to some obser- vers there are many other conditions, particularly of the nervous system, which result from hypo- thyroidism
		Dementia Pre- cox (?)	
	Hyposecretion	Myxedema Cretinism	
Parathyroid	Hyposecretion	Paralysis Agitans	
Adrenals	Hyposecretion	Addison's Disease	It is held by some that the adrenals are concerned in other conditions
Pituitary	Hypersecretion	Obesity	Various forms of "patho- logical obesity" come under this head, all pre- sumably associated with perverted function of the sex glands (gonads). It is not uniformly con- ceded that the distur- bance of function is "hy- per," some holding the opposite.
		Acromegaly (Gigantism) (Macrosomia)	
	Hyposecretion	Dwarfism (?) (Microsomia)	
		Progressive Muscular Atrophy	
	Hyper- or Hypo- Secretion (?)	Chronic Hy- drocephalus	
Pineal	Hyper- or Hypo- Secretion (?)	Obesity Tallness in children Cachexia	Great divergence of opin- ion exists with reference to the pineal gland. Some observers deny that it exerts any influ- ence on metabolism, and that it is of more impor- tance than a "vestigial remnant."

Thymus	Hypersecretion	Osteomalacia Rickets "Idiotia thymica"	This gland is supposed to control calcium metabolism, and hence to be associated with conditions of the osseous system. In this regard, as in many others connected with endocrinology, marked differences of opinion exist
	Hyposecretion	Ossification (?) Arthritis de-formans Exophthalmic Goitre	
Sex Glands (Gonads)	Hypersecretion	Osteomalacia Pseudo-osteomalacia Rickets Dementia pre-cox (?)	It may be stated in a general way that the sex glands are so involved in perversion of function that it is at present impossible to clearly differentiate the influence exerted by them from that of others.
	Hyposecretion	Obesity Gynecomastia (?) Ossification (?) Arthritis de-formans (?)	In all forms of "pathological obesity", especially Adiposis dolorosa, of Dercum's disease, the gonads are supposed to be concerned, no matter what other endocrinous gland may be involved.
Spleen	Hypersecretion	Pernicious Anemia Banti's disease Chronic jaundice Gaucher's disease	The functions of the spleen are still matters of dispute. Some of the recent investigations, it is claimed, tend to show that, despite older views to the contrary, the spleen may be brought within the category of endocrinous glands. Its role in this line is yet to be determined, but its influence in the causation of the diseases named is being made the subject of study.
Miscellaneous Tissues and Organs.			In the light of the findings of endocrinology, many other structures are being studied. The kidney substance, the intestine, the pancreas, etc., are among these.

*In the present state of knowledge concerning the endocrinous glands and the results of perversion of their functions, it is impossible to formulate a table of exact findings in all cases.

ILLUSTRATIONS.

OBESITY. — pp. 6-10.

Fig. 1. Obesity of Childhood. Age and weight not given. (Gould and Pyle, "Anomalies and Curiosities of Medicine.")

Fig. 2. Obesity of Childhood. Age, 13 months. Shown to give idea of relative age of Fig. 1. (Gould and Pyle.)

Fig. 3. Obesity of Childhood. Age, 9 years; weight, 201 pounds. (Gould and Pyle.)

Fig. 4. Obesity in a Dwarf. Height, 34 inches; weight, 309 pounds. (Gould and Pyle.)

Fig. 5. Idiocy with Obesity. Randall's Island. Age, 40 years. "Idiopathic idiocy." Members of her family who visit her show tendency to adiposity, and are probably mentally deficient. (Bainbridge.)

Fig. 6. "Adiposis dolorosa" (Dercum.)

Fig. 7. Idiopathic Idiocy with Adiposity, localized in right upper arm. Age, 38 years. Randall's Island. (Bainbridge.)

EMACIATION. — p. 11.

Fig. 8. "Living Skeleton" (Progressive muscular atrophy). "Museum Freak." (Gould and Pyle.)

Fig. 9. "Living Skeleton" (Progressive Muscular Atrophy). Female, aged 18 years; weight, 27 pounds. (Gould and Pyle.)

OSSIFICATION. — p. 12.

Fig. 10. "Ossified Man." (Gould and Pyle.)

OSTEOMALACIA. — pp. 12 and 13.

Fig. 11. Osteomalacia, a pronounced form of rachitis. (Gould and Pyle.)

PROGERIA. — p. 13.

Fig. 12. Progeria, or precocious old age. Girl, aged 8 years and 3 months. (Rand.)

HIRSUTIES. — pp. 14-18.

Fig. 13. Masculine type of mental defective, with beard. Age, 59. Shaved monthly. Randall's Island. (Bainbridge.)

Fig. 14. Masculine type of mental defective. Aged 39. Heavy growth of beard; shaved monthly. Randall's Island. (Bainbridge.)

Fig. 15. Low-grade imbecile epileptic. Aged 50. Very long beard, shaved monthly. Features masculine; voice feminine. Randall's Island. (Bainbridge.)

Fig. 16. Low-grade imbecile. Aged 30. Heavy growth beard, shaved monthly. Randall's Island. (Bainbridge.)

Fig. 17. Group of Figs. 13-16.

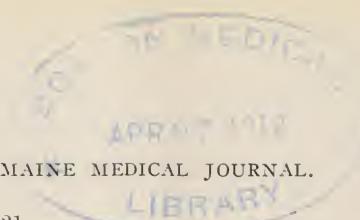
**DWARFS.** — pp. 19 and 21.

Fig. 18. "True dwarf." Age, 20; weight, 36 pounds; height, 22 inches. (Gould and Pyle.)

Fig. 19. "Rachitic dwarfs." Height, 3 ft., 6 in. (Gould and Pyle.)
Fig. 20. "True dwarf" and Giantess of same age. (Gould and Pyle.)

GIANTISM: ACROMEGALY. — pp. 20 - 22.

Fig. 21. Irish Giant. (Gould and Pyle.)

Fig. 21 - a. Acromegaly without giantism. (Gould and Pyle.)

Fig. 21 - b. Progressive enlargement of hands in Acromegaly. (Gould and Pyle.)

GYNECOMASTIA. — pp. 22 and 23.

Fig. 22. Gynecomastia. Man with fully developed breasts, which hung down like those of a nursing woman. (Gould and Pyle.)

Fig. 23. Idiopathic Idiocy, with marked enlargement of breasts and general adiposity. Abdominal fat was so annoying to him that it was removed. Note absence of umbilicus, which was removed in the lipectomy operation. Aged 48. Sexual pervert. Randall's Island. (Bainbridge.)

ADDISON'S DISEASE. — p. 24.

Fig. 24. Uniform pigmentation of face. (Addison.)

Fig. 25. General pigmentation, with areas of white. (Addison.)

HYDROCEPHALUS—Macrc-type. — p. 24 - 26.

Fig. 26. Hydrocephalus, with meningocele from occipital fossa, about size of base-ball. Fronto-occipital circumference, 152 cm. Female, aged 16. Randall's Island. (Bainbridge.)

Fig. 27. Group of hydrocephalic defectives. Randall's Island. (Bainbridge.)

Fig. 28. Chronic Hydrocephalus (rare) in adult. (Gould and Pyle.)

MICROCEPHALUS. — p. 27.

Fig. 29. Microcephalies, brother and sister. Girl (to left) aged 18. Boy (to right), aged 9. Marked improvement in mentality under treatment with pituitary extract. (Bainbridge.)

HYPERTHYROIDISM. — pp. 28 and 29 - 31.

Fig. 30. Systemic hyperthyroidism, with goitre; of exophthalmic and cardiac type. (Bainbridge.)

Fig. 31. Systemic hyperthyroidism with no apparent goitre, but with exophthalmos. (Bainbridge.)

HYPOTHYROIDISM. — pp. 28, 31 - 46.

Fig. 32. "Congenital myxedema." Child sent to Presbyterian Hosp. for operation upon tongue. (1894.)

Fig. 33. Negro cretin. Randall's Island. (Bainbridge.)

Fig. 34. Cretinism with goitre. Before operation. Female. Randall's Island. (Bainbridge.)

Fig. 35. Fig 34, after operation.

Fig. 36. Cretinism with goitre. Randall's Island. (Bainbridge.)

Fig. 37. Group ofcretins of different ages. Randall's Island. (Bainbridge.)

Fig. 38. Group of "Mongolian Idiocy." Ages, from left to right, 17, 19 and 11 years. Thought by some to be found in children born at end of long line of normal children, generally at end of child-bearing period, of normal parents; also, failure of some internal secretion in mother. (Bainbridge.)

Fig. 39. Also shown in Fig. 38. Shows hyperextensibility of joints. "Great contortionist." Randall's Island.

Fig. 40. Same as Fig. 39. Shows marked furrowing of tongue usually found in idiots of so-called Mongolian type.

Fig. 41. Cretin, aged 37. Condition in 1907, before treatment by implantation of calf's thyroid into abdomen, and human thyroid into suprarenal region. (Incidentally, at this operation, a large stone was found in the kidney, and removed). Note absence of hair. Randall's Island. (Bainbridge.)

Fig. 42. Same as Fig. 4, April, 1915. Note suit of hair. Improved considerably under treatment.

Fig. 43. Probably oldest living cretin. Aged 41. Had one brother of same type, who died at 32. Randall's Island. (Bainbridge.)

Fig. 44. Same as Fig. 43, in good humor.

Fig. 45. Hypothyroidic alopecia. Influence of thyroid feeding. (Hertoghe.)

Fig. 46. Mild myxedema, with loss of eyebrows. (Hertoghe.)

Fig. 47. Hereditary paludism. First figure to left shows arrest of growth, age 8 years, height 2 ft., 10 in. Other figures show influence of thyroid feeding after 1, 2 and 5 years. (Hertoghe.)

Fig. 48. Same as Fig. 47, 14 years after treatment. (Hertoghe.)

Fig. 49. Mother of girl shown in Figs. 47 and 48. Mild myxedema. (Hertoghe.)

Fig. 50. Mild myxedema. Aged 25. (1882.) (Bainbridge.)

Fig. 51. Same as Fig. 50, showing condition in 1908.

Fig. 52. Same as Figs. 50 and 51, showing condition in May, 1914.

Fig. 53. Severe myxedema, before and after treatment. (Hertoghe.)

Fig. 54. Severe myxedema, before and after treatment. (Hertoghe.)

Fig. 55. Severe myxedema, before and after treatment. (Hertoghe.)

Fig. 56. Severe myxedema, with predominance of rheumatoid pains. Before and after treatment. (Hertoghe.)

Fig. 57. Severe myxedema, before and after treatment. (Hertoghe.)

Fig. 58. Severe myxedema before treatment. (Hertoghe.)

Fig. 60. Same as Fig. 59, after two months' treatment. (Hertoghe.)

Fig. 61. Severe myxedema. From left to right, before treatment, after two months' treatment, after fourteen months' treatment. (Hertoghe.)

Fig. 62. Severe myxedema, cachectic stage, three days before death. (Hertoghe.)

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Editorial Comment.

Annual Oration.

Among the many good things which have come to the Maine Medical Association, during the past year, we feel that this annual oration on a subject, which is of utmost importance to the profession and the laity, is timely; therefore it is given precedence of the annual transactions, which are customarily published at this time.

Dr. Bainbridge has spared neither time nor expense in placing this material in the hands of the profession of Maine, and we can assure him that the members of the Maine Medical Association fully appreciate his most generous effort.

The illustrations in this article have been secured by the personal solicitation of Dr. Bainbridge, who had electros made, and they appear here for the first time.

Those who were fortunate enough to hear the oration were invariably enthusiastic, and we sincerely commend it to those who were unable to attend the June session.

Oral Sepsis as a Cause of Disease.

The vital question of the effect of oral sepsis in the production of disease has found no more potent an advocate than McKissack of Belfast, Ireland. Not only does he assert that oral sepsis produces diseases elsewhere from affections of the gums, but the wearing away of the enamel opens up a path of infection through the dental pulp. So too, the frequency of oral lesions, such as mucous slits acts in the same way, and all of these sources of infection tend to infect the tonsils, and to increase their toxic influence. Besides this, most people

with crowns, fillings, plates and bridges take no care of the teeth after such work has been done, but let the metal insertions irritate the gums and mucosa. Finally the bacteria of pyorrohoes alveolaris enter the stomach with our food. It is, indeed, surprising that we continue so long immune from autogenous infection due to diseases of the mouth; an immunity ascribable only to use and wont. We get used to ourselves, and so do not infect ourselves so often as would seem a matter of course.

McKissal took pains to examine the mouths of 155 patients, and where 4,960 teeth should be, he found 2,164; less than half. The percentage of carious teeth in each mouth varied from 20 to 80. In his opinion, 90% of all mouths were unhealthy. Amongst the diseases from which these patients suffered, one-third were due to oral sepsis. Amongst occasional diseases due to oral sepsis, mention is made of goiter, for septic absorption has profound influence on the thyroid. Arterio-sclerosis also may arise from similar causation. No trace could be proved between carious teeth and tuberculosis, for where every tooth had been extracted, a cure was not obtained by this heroic remedy any sooner than by other treatment. Cancer too, is worth considering from this point of view, whilst in the opinion of McKissack, cancer of the mouth is much more due to oral sepsis than to the classical dirty short clay pipe and nicotine.

A friend of Dr. McKissac, an ophthalmic surgeon believed that out of 215 inflammatory diseases of the eye, 139 depended on oral sepsis.

The writer concludes, that though tolerated for years, oral sepsis may ultimately become a source of disease by lowering the tone of health. The teeth should always be studied in diseases of all sorts, physicians should urge their patients to keep their teeth in good condition, and patients should be taught to follow up all work done by the dentist.

The reviewer begs leave to add, that we should not forget that the Mohammedans regard cleanliness of the teeth as a matter of religion, and make it a religious duty to cleanse them with wooden tooth picks, with softened ends. Just as they wash their hands before eating, lest their food, befouled by dirty fingers, harm the body, so do they clean their teeth after eating to prevent contamination by shreds of food remaining in the interstices. Finally, let us recall that anecdote of the great romancer, Alexander Dumas, who being asked in his 73 year of what he was proudest, instead of naming "Monte Christo" or some other novel of his, replied: "I am proudest of the fact that I am probably the only man living at 73 who has thirty-three natural teeth in his mouth."

J. A. S.

Holocain Hydrochloride Not under the Ban of the Anti-Narcotic Law.

Once in a while the skilled ophthalmic surgeon likes to make use of holocain, either as a local ocular anæsthetic, or for the treatment of obstinate and recurrent ulcerations of the cornea, in which it is often-times very efficacious when other ordinary remedies totally fail. It happened to us lately to write a prescription for this useful drug, and we were not a little surprised and put out of joint by being hauled over the coals by a local apothecary who refused to dispense it without fulfilment of all the legal formalities, including names of all the parties concerned, as well as the license number as demanded under the anti-narcotic law in prescribing cocaine and so on. Being just a little vexed at the absurdity of any anti-narcotic law so far as concerns the frivolity and ridiculousness of anybody ever thinking of utilizing an eye lotion as a beverage and stimulant, we took the trouble to study the origin and composition of holocain. Thereupon, much to our own amazement we found for the first time in our life, that holocain had no connection at all with cocaine as its terminal syllable would suggest, but that it was nothing more than a simple derivate of phenacetine. Not having the anti-narcotic law just now at hand, we are unable to state whether or not phenacetine comes under the law, but this much we can say: that if phenacetine prescriptions call for all the legal formalities of the anti-narcotic law, so does holocain, whilst if not, then holocain can be prescribed and dispensed without those formalities which most of us condemn as frivolous, so far as the utilization of eye lotions for "DOPE" is concerned.

Alcohol and Insanity, or Facts Versus Fanaticism.

From a reprint by Dr. Ralph Reed of Cincinnati, the following conclusions on the negligible influence of alcohol upon insanity are worth condensing for our readers, although the paper itself was printed some time past. Taking up the challenge of the prohibitionists: "Go with me through the hospitals and insane asylums, and observe on every hand the ravages of alcohol," Reed replies: "Yes, indeed, come with me through this insane asylum and study the first 200 cases in the wards."

What do these patients show as to the relation between insanity and drink? No more than to say that 33% of the insane have blue eyes, and consequently possession of blue eyes tends to insanity. Amongst the predisposing causes are heredity. Take the average run of cases and we find dementia praecox, a disease attacking the young with an unknown cause. Next we see maniac depressive insanity, with

cause unknown, some cases being curable but many recurring. Then comes parania from an unknown cause, and paresis not absolutely due to alcohol. If alcohol were a frequent cause of insanity, it would have taken so long a time to produce this condition that the friends of the patients would have known of the habit and reported it, in their demand for the reception of the patient into the asylum. Back, too, of alcoholic abuse there must have been some imbalance of mind, or the habit would not have been formed. If, again, alcohol, were a potent cause of insanity, superintendents of hospitals would be found favoring prohibition more publicly than they do at present.

Tabulating 200 cases, Reed excludes 16 under 15 years of age, and of the remaining 184, 82 were men and 102 women. Irrespective of sex, 101 were abstainers, 68 moderate drinkers, and only 15 heavy drinkers. Out of 184 patients therefore, only 15 could by any possible argument be classified as insane from alcoholic abuse.

Going carefully from this point into a precise history and study of the 15 cases, Dr. Reed finally excludes 7 that were insane before they began to drink at all, 6 showed more and more advancing symptoms, including abuse of alcohol, and in the remaining 4, alcohol acted as a secondary exciting cause. From this point the writer finally goes over the entire list of 15, and concludes that in one only could excess in alcohol be written down positively and honestly as the sole cause of the insanity.

One of the most interesting points in this long list of patients is the very large number who were total abstainers from infancy upward.

This pamphlet of Dr. Reed was reprinted and sent broad spread as it would seem, as a document against prohibition, and brought to him many replies. To a physician from Cleveland who wrote the writer a very insulting note, inquiring, "How much did you get from the brewers and saloon keepers?" Dr. Reed replied, asking that physician: "How much would you have demanded for it?"

On the Value of Aromatic Spirits of Ammonia in Anaesthesia.

Those who care for a suggestion for the production of scientific and dangerous anaesthesia will take due notice of a paper by Dr. I. I. Parsons in "The Therapeutic Gazette" for April. In it are brought out the valuable points in the use of this old remedy. Ammonia accelerates respiration, and increases its depth by stimulation of the respiratory centres. It also increases the pulse rate by stimulation of the accelerator nerve of the heart. It increases arterial pressure by

stimulation of the vaso-motors. In anaesthesia it may be administered through the ether cone. In the first stage with shallow breathing, a few drops produce deeper breathing. When at end of the first stage breathing is irregular, or has seemed to cease, inhalation of a few drops of the spirits sets it going in better shape. In the coughing, gagging and cyanosis, often seen at this stage, it has its value also.

In the second stage it keeps the breathing regular and gives the surgeon a free chance for attention to the operation. This is especially valuable in children and the aged. Then again, its use permits the patient to remain safely for a longer time than usual under ether. If the patient falls into a critical condition from the operation, stop the ether but go on with a few drops of the ammonia spirits.

In the last stage, the ammonia brings the patient out rapidly, and by vigorously rubbing the face and flushing the eyes with a boric acid solution, the patient may recover from the anaesthesia before leaving the operating table. So too, post-operative nausea and vomiting can almost invariably be prevented and controlled by allowing the patient to inhale the ammonia spirits whilst coming out from under the ether, a few drops being poured on gauze and held near the nostrils. If nausea continues, we may continue the inhalation indefinitely, and also give the spirits internally.

Finally, in children and elderly patients or those weakened by previous shock or a prolonged operation, a few drops administered by the mouth prove of great value. The writer is positive in his commendations of the value of spirits of ammonia in anaesthesia, and believes that routine use of it will soon compel for itself a bottleful to be placed alongside the bottle of ether on the anaesthetizer's table, as of surgical importance hardly second to that of ether itself.

J. A. S.

War and Scarcity of Drugs.

This topic is having much consideration in England, at the present time. Starting with the claim that iodine and its preparations have long been held, by agreements, at a price too high above its actual cost, and a fair profit, so as to be of reasonable value in medicine, various editorials argue that demand does not evoke a corresponding supply. The most serious shortage of today is in phenol, and its derivatives, amongst them, salicylic acid, of which at the beginning of the war none was made in England. Salol is another derivative and is largely in demand far beyond any possible supply. Besides its uses in surgery, phenol is in great demand for war explosives, but in surgery it has a very useful substitute in cresol, which has the advantage of not solidifying at

reasonable temperatures. Cresol with soap and emulsions makes a good substitute for carbolic acid, but none has so far been obtained for salicylic acid and its compounds. Owing to this failure in Great Britain, physicians are urged to use salicylic acid sparingly, and only in those diseases in which it is claimed to be particularly valuable, such as rheumatism and neuralgia. Salol may be substituted for salicylic acid compounds, and lysol is of value as a substitute for carbolic acid.

The great difficulty before the war, was the cheap competition with Germany, compelling manufacturers to close their works, so that now it is difficult to get men to make the useful drugs in sufficient abundance. Bromides too, are scarce, but as America and Switzerland have come to the rescue, the shortage is less urgent than before. So, too, with potash and its derivatives, but in Scotland much attention is being paid to such production, whilst Italy adds to the supply by obtaining potash from the by-products of sugar and olive oil.

Atropine and its derivatives are also in scant supply, but it is pointed out that Egypt should produce these from *hyoscyamus* which grows there abundantly. Cocain has been very scarce, but the substitution of hydro-chloride of quinine and urea for local anaesthetics made up for the shortage. The war has from this point of view proved the value of these drugs as substitute for cocain, so that in the future there will be less demand for cocain and novocain, for local anaesthesia.

Thymol, too, is scarce, but this can hardly be called a needed drug. Lanolin once made exclusively in Germany is now made in England, whilst veronal and phenacetin continue scarce with no sign of manufacture thereof, or of any substitutes so far in Great Britain. From this time onward quinine and urotropine will have their values as substitutes. Finally, the demand for old-fashioned drugs for which England has so long relied upon Germany has brought about home manufacture and will no doubt stimulate trade after the war has ceased.

IMPORTANT ANNOUNCEMENT.

It is or should be an honor to present a paper before the Maine Medical Association. The Committee on Program for the ensuing year, conscious of this fact, feels strongly that only those of merit deserve a place on the program; and proposes to institute a somewhat different method for their selection from that which has hitherto prevailed,—competition.

With the single exception of the annual orator, persons will be assigned to the program whose papers conform most closely to certain requirements which the committee regards as elemental.

First.—The topic dealt with should be timely.

Second.—It should represent the experience of the writer so far as may be, or it should be a first hand account of a personal observation of the work of others.

Third.—It should, if possible, be an addition to the sum total of medical knowledge.

Fourth.—Form will not be accepted for substance.

It is desirable that all papers be in the hands of the chairman of the Committee not later than March 1, 1916; and that each essayist submit the names of two members of the profession who are competent and *who have agreed* to open the discussion upon his particular topic. Bear in mind, too, the time limit of twenty minutes for all readers and five minutes for subsequent speakers.

This competition is open to all members of the State Association, irrespective of how recently one may have read. Its object is the presentation at the next session of papers of worth and, incidentally, to provide a stimulus for better and original work.

The best eight or ten papers in the judgment of the committee will make up the program, and the fortunate ones will be duly notified of their selection. It is earnestly hoped that many will avail themselves of the privilege and opportunity herewith extended to contribute to medical knowledge and to the success of our next meeting.

E. W. GEHRING,

J. F. THOMPSON,

H. E. MILLIKEN,

July 12, 1915.

Committee on Program.

FRANK S. BETZ COMPANY EXPAND.

Considerable interest has been aroused in professional and trade circles by the rumor of changes in the personnel of the Frank S. Betz Co., of Hammond, Indiana. These rumors have been definitely confirmed by members of the company. Mr. Frank S. Betz, who hitherto has been virtually the sole head of this large business, has felt the need of active assistance in the management of the affairs of the concern, and especially to carry out plans of extension along the many lines in which the company is interested. As a result, a coterie of business men, including many high in the financial and business world, have purchased a large interest in the company; and extensive plans are being formulated for the general extension of the business in every branch. Mr. Betz naturally remains with the company as President and Chairman of the Board of Directors. The changes will not affect the policy of the concern as to its methods of manufacturing and selling goods, but the infusion of new blood will mean greater activities and further extensions in every way.

The growth of the Frank S. Betz Co. is another illustration of the remarkable success that can be achieved by a man of untiring energy and devotion to his work. He has built up this large business practically unaided, without the assistance of outside capital or borrowed money. It really represents the earnings on his original investment.

The new members of the firm are fortunate to align themselves with an established business house that has never carried a dollar of indebtedness except current bills for merchandise. With such a reputation for financial integrity, the plans of the new management seem assured of success.

Necrology.

BENJAMIN FRANKLIN STURGIS.



Dr. Sturgis, President of the Maine Medical Association in 1889-90, and a very active member for many years before retarded by advancing age, died from acute pneumonia at his home in Auburn, March 31, 1915, after an illness of a few days. He attended to his patients as usual up to the very day of the beginning of his pneumonia, and thus remained, as most of us would wish, active in life and in practice to the last.

I find that Dr. Sturgis was born in Gorham, Maine, October 28, 1837, that he studied in that town in the ordinary schools and academy, obtained his medical degree at the Medical School of Maine in 1863 and at once settled in the village of New Gloucester. In 1864, he obtained a commission as Assistant Surgeon in the 19th Maine Volunteers, and served with it for the remainder of the Civil War. Renewing his practice in that same year, he remained in New Gloucester until in 1867, when he removed to Auburn where he practiced the rest of his life, fully fifty years. He was a man of dignified appearance, spoke very intelligently and very often at the meetings of our Association, in discussion of many papers as offered. One of his own papers "On Chronic Abscess of the Tibia," met with a favorable reception and discussion, for it was to the point, well expressed and well delivered.

By his fluency of speech and activity as a debater, Dr. Sturgis

gained the favor of our members, and in 1889 was chosen President. At the following meeting he presided in his usual dignified manner, and delivered an address of unusual suggestiveness concerning recent advances in medicine and surgery.

Dr. Sturgis also wrote many papers for local medical societies, and contributed to our transactions some valuable sketches of the lives of members who had gone on before. They had the proper touch and tone needed to depict the career of one whom many had known.

His experience in the army made Dr. Sturgis a pioneer surgeon in and around the cities of Auburn and Lewiston, and for many years he did all the operations of modern surgery with most excellent results. Although a man seriously devoted to his profession, he was at one period of his life very active in politics, served in the State Legislature in 1874, and in the State Senate in 1876, and was finally in 1884 elected Mayor of the City of Auburn, a position which he filled with satisfaction to the people.

Dr. Sturgis went through life without a hobby, and attended, outside of his few political divergences, strictly to the profession of medicine; as a medical man, he was serious in his manner, and conservative in his advice; as a surgeon, he was a very competent operator and served many years on the staff of the Eastern Maine Central Hospital and of smaller local institutions. He is survived by three sons who are like their father, physicians and surgeons in active practice.

J. A. S.

ALBERT WILBUR LINCOLN.

On the 22nd of June, 1915, Dr. Lincoln died at the advanced age of 82, after a long illness due to cancer, but probably hastened at the end by the sudden and unexpected death of his favorite nephew, Dr. Lincoln of Augusta, of whose death a recent notice in the Journal has made mention. Dr. Lincoln was born in Albion, March 18, 1833, studied in China Academy and entered the Class of 1861 at Union College. Owing to some unknown reason, he left college before graduating and began the study of medicine. Whilst still a medical student, he enlisted in the 28th Maine Volunteers as a private, but at once obtained a position as hospital steward, which gave him many opportunities for medical and surgical practice during his one year service in the army in the Civil War. His regiment took part in several battles in the region of Port Hudson. Returning safely home he continued his studies in medicine and in 1865 obtained his degree at the

Medical School of Maine. He practiced first at Pittston, then in Monroe, and finally settled in Gorham, where he remained the rest of his life. He continued in active practice until 1900 when he retired at the age of 77.

Dr. Lincoln was a careful practitioner of medicine and well understood the art of minor surgery. He retained his activity until nearly eighty, and at the time of his death his hair was as dark as in his youth. He was a man of religious outlook, and was very fond of mechanics, making boxes, desks, and violins which would discourse excellent music from hands that were capable of skilful use of that instrument.

Dr. Lincoln was twice married; first to Miss Betsy Harmon of Union, who died in 1883, and in 1885 he married Miss Emma Eliza Douglas of Gorham by whom he is survived.

J. A. S.

THOMAS PERKINS SMITH.

This exceedingly pleasant and agreeable man and able practitioner for many years in Westbrook, died at his home May 7, 1915, after long sufferings due to cancer of the liver. He was the son of David Hibbard and Esther Perkins Smith of New Hampton, New Hampshire and was born in that town October 18, 1852. There he obtained a good education, continued it at the Maine State Seminary at Lewiston, and obtained his academic degree at Bates College in 1874. During his time of study he taught in various schools in Maine and whilst educating himself in medicine he taught at Lebanon and Somerset Academies, in both of which he did excellent work as principal. He studied medicine vicariously during all these years and finally obtained his degree at the Harvard Medical School in 1879. He then settled in Westbrook where for thirty-two years he carried on successfully a medical practice, doing hardly any surgery at all. The last year of his life's work interrupted by the beginnings and continuation of his cancerous disease.

Dr. Smith was for some years both town and city physician, and could have enjoyed political honors had he so desired. He liked to work on the School Committee also and helped his fellow citizens much in that way. He was a most agreeable man, as has been said, pleasing in his address, whilst his kindly ways went far with the mental, and of course with the bodily, relief of his large clientage. He also acted efficiently as a careful and precise examiner for life insurance.

Dr. Smith married December 15, 1879, Miss Annie Hight Lord of Athens, who survives him, and he left also, two children, a son now at Bowdoin and a daughter at Bates.

J. A. S.

WELLINGTON JOHNSON.

After a lingering illness due to diabetes and culminating in an acute attack of carbuncle, Dr. Wellington Johnson of Augusta, died suddenly February 18, 1915, at the age of 60.

He was born in Somerville, Maine, February 7, 1855, the son of Wellington and Dorothy Johnson, educated in the local schools and at Castine Academy, studied medicine with local physicians, and obtained his degree of M. D. at Bellevue Medical School of New York in 1887. He settled at once at Cooper's Mills and practiced there until 1895, when he removed to Augusta where he practiced the remainder of his active medical life. He belonged to all the medical societies and a large number of fraternal benefits and lodges and was, personally, a very popular and genial man whom everybody liked. He had an extensive medical practice, and as a member of the surgical staff of the Augusta Hospital, did a considerable amount of surgery of today. I find that he read an excellent paper on "Labor," before this society at one time.

It was, however, as a member of the Kennebec County Medical Society that Dr. Johnson was at his best. He was Secretary of that society for many years and was a model of what such an official should be. He kept the records carefully and thoroughly, he stimulated the members to work, he carried on the meetings regularly; in a word he was a model County Secretary, the right man in the proper place, and a man in that place of whom very few are ever the equals. When such a man is found the members should hold on to him as long as they can, and this is the way in which Dr. Johnson was treated. Accepting in the last year of his life his resignation as secretary with genuine regret, he was chosen its President, and in that office he continued his good work of many years before, until he died.

Dr. Johnson was married in June, 1881 to Miss Mary Lewis of Whitefield and is survived by her and by several children, one of whom, Dr. George H. Johnson, is now in active practice in Berlin, New Hampshire.

J. A. S.

Sublingual Medication.

Paulson of Ross-on-Wye is enthusiastic over sublingual medication, claiming that it is safer, cleaner, and quicker than the hypodermatic, for no preparation is needed at all except to wash out the mouth with a little cool water. Place the desired tablet under the tongue and make the patient keep it there, and with great rapidity the effect desired is produced. It is too simple to be taught, and hence the reason why nothing is ever heard of it in the Books or Medical Schools.

FORD CAR OWNERS who want to get 50% more mileage from regular tires, address Betz Tire Saver, Hammond, Indiana.

Abstracts from Current Literature.

(Medical Record, May 8, 1915)

Modern Phases and Treatment of Basedow's Disease.

By O. Hensel, Ph. G., M. D.

In diseases caused by abnormal functioning of the ductless glands or endocrine system, we rarely find a single organ involved. Usually more than one of the so-called ductless glands are diseased.

We include under Basedow's disease (1) Hyper- or dysthyroidism; (2) Basedow's disease proper; (3) Basedow's disease with pronounced thymic symptoms. Dysthyroidism is a better name than hyperthyroidism as the juice from the gland in these cases is toxic to animals while an equal amount from a normal gland is harmless. The symptoms are marked, with change in blood picture, suggesting Basedow's disease and similar to acute iodide poisoning. Clinically, in dysthyroidism usually two of the cardinal symptoms are absent, the only cardinal symptom present being an enlarged and vascular thyroid. Often minor symptoms become the chief complaint, as diarrhea, neurasthenia, tremor, tachycardia, rise in temperature or even slight exophthalmos. Cases with temperature and loss of weight are often mistaken for tuberculosis. Often the diagnosis of diabetes is made when there is alimentary glycosuria.

The blood picture is mononucleosis with delay in coagulation time. There may be leukopenia and relative increase in eosinophils. The increase in lymphocytes is probably due to thymus intoxication as the blood picture returns to normal after thymectomy. Another useful laboratory procedure is the abderhalden serum test. In the serum of all cases of exophthalmic goitre examined by Lampe and Fuchs ferment were found which digested Basedow thyroid, thymus, ovarian tissue and sometimes even the tissue of normal thyroid, so probably in every case we have a polyglandular syndrome.

In turning to Basedow's disease proper, the chief interest lies in the participation of the thymus in the pathogenesis of this disorder. Briefly, the study of this phase of the subject has established these facts:

1. The blood picture returns to normal more quickly after thymectomy than after thyroidectomy.
2. Injection of juice of thymus gives rise to typical blood picture.
3. After thymectomy there may be regressive changes in the thyroid.
4. Implantation of normal thymus into thyroidectomized dogs prevents the appearance of cachexia strumipriva.
5. The complete symptoms complex of Basedow's has been produced by implantation of hyperplastic thymus.
6. Embryologically, the glands are related and injection of both thyroid and thymus extract will cause an increase in adrenalin in blood.

7. The pupillary reactions to drugs in dogs are the same after thymectomy and thyroidectomy.

The interesting researches of Eppinger and Hess on vagotomy and sympathectomy help us in the study of the various types of Basedow's disease. Most viscera are innervated by two systems, the sympathetic proper and the autonomic or vagus systems, which are more or less antagonistic toward each other. In many pathological states a series of symptoms will point to increase in tone in either one or the other system.

In Basedow's disease, the sympathetic cases show greatly increased heart action with increased blood pressure, pronounced exophthalmos and a large and vascular thyroid. The vagotonic cases show only moderate tachycardia sometimes even a bradycardia but with pronounced subjective heart symptoms. The blood pressure is low and exophthalmos is slight or absent. While the thyroids and thymus are probably antagonistic in function, each of these glands doubtless produce both vagotonic and sympathetic tonic poisons when hyperplastic.

Pure vagotonic or thymic cases are rare and are by far the most severe type.

As medical treatment, Hensel mentions thymus extract, veronal, medinal, luminal, Rodagen, the milk of thyroidectomized goats, and antithyroidine, all of which have their advocates. He warns against the use of Beebe's serum. The X-ray treatment has been successful in some cases.

For surgical treatment Hensel advises, first, ligation of the superior thyroid vessels. If this proves inadequate, hemi-strumectomy is indicated. This is often sufficient but, occasionally, fails even when as large a part of the second lobe as possible is taken. Such cases indicate the necessity of removal of the thymus gland. Halstead says "The combined operation gives better results than the thyroid operation alone and striking is the relative absence of a reaction." The mortality of the combined operation is also lower. Thus Hensel concludes, "In all probability, then, we are serving our patients better if, after medical treatment, X-Rays and ligation have failed, we remove as much of both organs as we can."

C. M. ROBINSON.

New and Non-Official Remedies.

During June the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Antiseptic Supply Co.:

Special Caustic Applicators 50%.

Fairchild Bros. and Foster:

Enzymol.

Eli Lilly and Co.:

Syrup Cephæline, Lilly.

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All papers, case reports, etc., should be type-written when possible.
Proof-sheets will be sent to the author when requested.
Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.
The Journal assumes no responsibility for opinions expressed by the authors.

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SEPT., 1915.

No. 2

The Sixty-Third Annual Meeting OF THE **MAINE MEDICAL ASSOCIATION**

HELD AT

The Poland Spring House, Poland, Maine,
Wednesday and Thursday, June 9th and 10th, 1915

MEETING OF THE HOUSE OF DELEGATES

FIRST MEETING OF THE HOUSE OF DELEGATES.

TUESDAY EVENING, JUNE 8, 1915.

The meeting was called to order by the President, Dr. H. L. Bartlett, at the appointed time.

THE PRESIDENT: The financial condition of the State Association is in somewhat sad straits, and I think we had better hear the report of the Treasurer, Dr. Gehring, first.

DR. GEHRING: Mr. President and Gentlemen: For the purpose of creating a discussion concerning the finances of the Association, I wrote a letter to the JOURNAL setting forth my own ideas relative to the expenditure of money by such an Association as this and, as it is possible that the letter has not been read by all of you, I will take just a moment to read it before submitting the figures:

When I became Treasurer of this Association in nineteen hundred and eight, the balance in the treasury was \$3,528.55. On June first next (this was written

on May first) liabilities will exceed assets, if we exclude from our reckoning money now being received for dues with which we ordinarily expect to defray next year's expenses.

Clearly, there has been no misappropriation of funds by the Treasurer himself, for (and this is quoted from the Constitution and By-Laws) "he shall pay money out of the Treasury only on a written order of the President, countersigned by the Secretary." Moreover, his books have been audited each year by the House of Delegates and found correct "with proper vouchers." How, then, does one account for a potential deficit? Too thoughtless and imprudent expenditure of funds to carry out the "Purposes of the Association," as set forth in Article two of the Constitution. Some of these "Purposes" are entirely without the sphere of curative medicine, which is our business. For example, why should we concern ourselves with the enlightenment and direction of "public opinion in regard to the great problems of State medicine, so that the profession shall become more useful to the public in the prevention of disease!" I want it distinctly understood at the outset that I am not opposed to disease prevention. This report is written from the point of view of the Treasurer of this Association. I think, however, that disease prevention and curative medicine are entirely separate and distinct. Disease prevention is not our vocation, but is the sole concern of the United States Public Health Service and of the up-to-date Board of Health. "Prevention is better than cure and far cheaper," to quote Locke, but we have been trained in *curative* medicine. Our advice upon problems of prophylaxis is practically worthless; it is presumption to think otherwise. The prescription of a Gorgas in a case of infant feeding would have equal value.

I submit that instruction of the public in the production, handling, and transportation of milk is not in our business; neither is the dissemination of information relative to venereal disease and the recognition of early cancer our function. As *individuals* we are not engaged in public health activity; why, then, do we collectively assume the obligation of organizations whose only *raison d'être* is disease prevention!

Again, during the past half dozen years we have repeatedly committed the stupid blunder of opposing the demands of the osteopath at Augusta. At the session of 1911, we devoted \$1,313 to this purpose. Within several weeks our Committee on Public Policy and Legislation has approved a bill of \$750, rendered by certain attorneys at law for services at the "last two legislatures. This committee was nominated and elected last year by the House of Delegates, and no limit placed upon the sum of money it might expend,—for what? For the purpose of "securing and enforcing legislation in the interest of public health and of scientific medicine. For endeavoring to shape legislation so as to secure the best results for the whole people. For striving to organize professional influence so as to promote the general good of the community."

I repeat that ours is not a public health organization, and I suggest somewhat less altruism in the future and much less solicitude for the people. It is they who will and must decide the fate of osteopathy or any other pathy. The law of supply and demand operates just as inexorably with healers of any sort as with merchandise. Why, therefore, continue to deplete our exchequer in the attempt to discharge a duty which does not devolve upon us! Why try to shield the people from any form of medical humbuggery! They have not asked for protection; they do not want it, if I understand their behavior toward all fads; and they do not deserve it from the regular medical profession.

For several years we have maintained a scholarship in the Medical School

of Maine, although we can ill afford it. One must cut his garment according to his cloth. A membership of 700, means dues amounting to \$1,400. The House of Delegates, knowing our source of income, last year made appropriations as follows: JOURNAL, \$1,000; Editor, \$200; Secretary, \$200; Treasurer, \$25; Medical School Scholarship, \$100; Committee on Venereal Diseases, \$50; Committee on Cancer, \$50; Committee on Public Health, \$50; Committee on Public Policy and Legislation, amount not specified, but proves to be \$750. About \$1,000 of this amount was devoted to work that was emphatically not our business.

Neither is the foregoing list of expenditures complete. It must include the cost of the bond, insurance on library, the President's traveling expenses, bills incurred by censors in the prosecution of their duties, stenographer, buttons, printing, etc., etc.

I respectfully suggest to the Association that in the future we confine ourselves strictly to our own vocation; that we be content with lending *moral* support to such public health measures as meet with our approval; that it is practically useless in a "free" country to deny freedom to practice any cult; and that the Treasurer of this Association be made ex-officio a member of the House of Delegates.

Now that letter was prompted by this state of things: We had in the treasury on June first last a balance of \$2,176.19. That does not sound just like a deficit; but \$1,210 of that amount is money received as dues for the year 1914-15. If I subtract from the amount of money in the treasury at the present time this sum of \$1,210, there remains \$966. There are still to be paid: To the JOURNAL, \$500; the Editor, \$100; the Secretary, \$200; the Treasurer, \$25; the Committee on Venereal Diseases, \$50; the Committee on Cancer, \$25; (they have only spent \$25.) the Committee on Public Health, \$40; (they have only spent \$10.) and the Committee on Public Policy and Legislation, \$750. In other words, we have outstanding bills, if these proportions are insisted upon, of \$1,690, and we have \$966 with which to pay them. Now, as I said before, about \$1,000 of the amount of money appropriated last year was appropriated for work that is distinctly work in preventive medicine. Excellent work! I have no disposition to criticise it at all; but as an organization of practitioners of medicine with decidedly limited funds, we cannot give ourselves the pleasure of doing this work; we have not the means. I have not the slightest objection to giving a worthy student \$100 as a scholarship in the Medical School. It is a very nice thing if one can afford it. I have not the slightest objection to lending moral support to all worthy public measures. I think that is our duty; but that is a very different thing from lending our financial support to it. We have been able to do certain things during the past few years because of a reserve which we had in the treasury in 1910 or 1911, \$3,528, or something of that sort. That reserve has now been exhausted, and we are potentially "in the hole," so to speak; and, as I see it now, there is only one way to get through next year, and

that is to levy an assessment upon every member of the Maine Medical Association. In my judgment that assessment ought not to be less than five dollars a head. That is all I have to say, Mr. President.

THE PRESIDENT: Gentlemen, before entering into a discussion of the report of the Treasurer, it seems best to take up the report of the Committee on Public Policy and Legislation. Dr. Robinson.

DR. ROBINSON: Mr. President, I will ask Dr. Hardy to make the report, as he has it.

DR. HARDY: Mr. President, I had a note from Dr. Robinson on Sunday, I think, asking me to draw up the report of this committee: and I did so very hastily.

The Committee on Legislation beg leave to submit the following report:

The Committee held a formal meeting January first last at Augusta at which time we went over very carefully all matters to come before the legislature and agreed upon the policy to be followed. At that time it was voted to employ the firm of Johnson & Perkins to represent us and act as legal advisers. Several times during the session of the legislature the committee met either in Water-ville or Augusta to confer with the attorney and members of the House and Senate.

All members of the Committee were present at the hearing before the committee of the legislature to whom the Osteopath bill had been referred and one or more of the committee were present at all hearings pertaining to medical matters. At the hearing on the Osteopath bill following the suggestion of the Chairman of the Judiciary Committee before whom the hearing was held the three members of the committee conferred with a similar committee from the Maine Osteopath Association and agreed on a bill which was later reported favorable in the legislature but which failed of passage. All the members were in favor of the bill and regret that it did not pass. This bill allowed the Osteopath to have a State Examining Board composed of Osteopaths who desired to practice their profession in this State. By the bill they were barred by law from practicing anything except osteopathic manipulation and could not practice surgery, gynecology and obstetrics. It seemed to your committee that the bill properly safe-guarded the work of the Osteopaths and settled a troublesome question for all time.

We also had introduced and passed an amendment to the Drug Law exempting physicians from its action. We went over the laws regarding poisonous drugs and their use in domestic and commercial pursuit.

The medical provisions of the Workman's Compensation Act were investigated and modifications which we deemed wise were suggested to the committee.

Our attorney and one or more members were present at all hearings on tuberculosis questions and we believe rendered valuable service on securing the passage of the State Sanatorium Law.

There were several medical practice acts presented to the legislature to which the committee gave the attention which seemed necessary.

Very respectfully submitted,

D. A. ROBINSON,

T. E. HARDY,

The Committee on Legislation.

THE PRESIDENT: Now, gentlemen, we will listen to the report of Dr. Gilbert, the editor of the JOURNAL.

REPORT OF THE MAINE MEDICAL JOURNAL FOR 1914.

In rendering the report of the JOURNAL for the year, it seems an opportune time to review, briefly, its life during the five years' existence. At the 1910 session of the Maine Medical Association, held at the Newport House, Bar Harbor, it was voted to change our form of transactions into a monthly medical journal. At that time our transactions were costing about \$700.00 per year and this sum was set aside as the appropriation for the Journal. The Association then had a membership of approximately 400.

The first issue of the JOURNAL appeared Dec. 1, 1910, when seven issues were published, so that, in the annual report submitted in June, 1911, the Association had taken over the ownership of the library of the Maine Academy of Medicine and Science, containing some 1500 volumes, which was one of the conditions imposed in starting the JOURNAL. It had also taken over the remaining funds of the Maine Academy of Medicine and Science and closed the affairs of that Association. There were some few volumes added to the library, which were sent to the JOURNAL for review. This year it was voted to increase the appropriation from \$700.00 to \$1100.00.

In 1912, we find twelve issues published with a balance in the treasury of \$388.55, whereas a number of new books had been added to our exchange list. It was voted to continue the JOURNAL with the same appropriation.

The report of 1913 showed twelve issues of the JOURNAL published and various other reports sent out, with a cash balance of \$591.56.

The report of 1914 showed a cash balance of \$494.75, having published the usual number of issues, the apparent loss being due to cutting out of all objectionable advertising material. Through the active cooperation of the Cooperative Medical Advertising Bureau of Chicago, which was able to replace our loss by pages of clean advertisements, our income at the end of the year was equal to that previous to our period of elimination. At this meeting we suggested that the appropriation be cut down to \$900.00 but it was finally voted to make it \$1000.00, and, at the 1915 meeting, we are pleased to report that the JOURNAL has done its customary amount of work and, with a lesser appropriation, shows an increase in its cash balance, having \$531.52.

During the past year there has been an increased interest on the part of the County Secretaries in rendering better reports of meetings, while the editorial staff have given generously of their time in carrying on this work. It would seem fitting at this time to pay special tribute to Dr. James A. Spalding, whose tireless energies have lessened the work of the other members of the Board. He has given liberally of his time and is always ready to respond to any request for material, requiring time and labor. The increased success of the JOURNAL is due largely to his efforts.

The customary number of volumes have been added to the library, whereas the Review Club has proved a most valuable adjunct. The meetings have been fully attended and the discussions interesting and profitable to the members.

I wish to say in closing that I fully appreciate the hearty cooperation on the part of the Editorial Staff and the county editors in their efforts to carry on this work.

Respectfully submitted,

FRANK Y. GILBERT.

THE PRESIDENT: The reports of the Treasurer and of the committees represented by Dr. Robinson, Dr. Hardy and Dr. Gilbert are now before you. The financial situation is now very plain, and I hope in your wisdom you will thresh this whole matter out and have a free discussion. It is now open for discussion on the report of the Treasurer. Some means must be devised to put the Society on a proper financial basis.

DR. MARSH: I would like to inquire, Mr. President, how many members we have in the Association.

DR. THOMPSON: About 700, Doctor; some over 700.

DR. HARDY: There are 63 members in good standing in Kennebec County.

DR. MARSH: I am willing to acknowledge that I had not read the Treasurer's article in our last JOURNAL, and this is something of a surprise to me. I do believe, with Dr. Gehring, in this matter of cutting down the amount of the appropriations. It seems very necessary that we should devise some plan whereby we can support our Society in a way that will be beneficial to ourselves, as well as to the public at large. Really, I have not thought this matter over enough to make any definite statement just now.

THE PRESIDENT: It seems, gentlemen, that the proposition is either to raise the dues or cut down our appropriations to the limit of our income. Now I hope you will all discuss this very freely; that is what we are here for. Do not wait to be called on; somebody go ahead and say something.

DR. CUMMINGS: Mr. President, I think that your suggestion, both ways, would be a proper way to get at it; to cut down our expenses, and make the assessment as small as possible to cover the deficit at the present time. Dr. Gehring, how many dollars are we really behind?

DR. GEHRING: We still owe \$1,690 if we pay up the appropriations as made last year, and we have \$966, excluding this year's dues, with which to pay it.

DR. CUMMINGS: An assessment of three dollars a member, then, would amply cover the deficit; and then, by cutting down the expenses, our dues for this year would run things for the year. It would seem to me that perhaps five dollars would be a little large for some of the members.

DR. HARDY: I had not seen Dr. Gehring's letter, and practically I have not received the JOURNAL for several months past; so this is sprung on me rather unexpectedly. I feel, of course, as though the Society ought to be economical and prudent in the handling of its funds; but I do feel that this Society has a function perhaps apart from curative medicine. I think that a practicing physician who fails to warn his

families of pending dangers is negligent, and I think that as a State Association we ought to take some active part in the affairs of the State. Certainly we must arouse the interest of the people in different problems that are presented. In regard to an assessment, of course if that is necessary, it ought to be made; in fact the expenditure by the legislative committee covers two sessions. There was an appropriation made two years ago for the members of the legislative committee, and this bill this year covers work done a year ago. I doubt if there will be any further expense in that respect until our next session. I am so in the habit of living on the future that I do not know but what the Association might for a year.

DR THOMPSON: I have not a great deal to say, gentlemen. It seems to me that, if we have got a deficit, we had better make it up by an assessment; and the only question would be as to how we shall make the assessment, whether on the counties or the members as they are here. I think there is going to be a large representation here, and I believe that if you make it right here and now, when the iron is hot, you will get your money. If you put it up to the counties, and they do not collect any better than they have this year, you will not get your money for two or three years from them. If you make an assessment, I believe it should be done the next two days.

THE PRESIDENT: It seems to me Dr. Thompson has struck the right key.

DR. ROBINSON: These appropriations were all threshed out, as you know, last year in the House of Delegates, and every one of them was taken up separately, discussed, and then voted on; so that if we appropriated more than we should have done, it is our own fault. As your Treasurer has said, the appropriation for the legislative committee in 1911 was \$1,300; this one was \$750. It struck me when I saw the bill from the counsel that it was large; but, not being accustomed to lawyers' bills, I thought that was my reason for so feeling. The one in 1911 was five or six hundred dollars larger than that. The firm certainly did a very large amount of work. They went over there to the meetings, and they followed up all the legislative propositions that had to do with medicine in any way,—not only the osteopathic bill, but the tuberculosis bills, the drug bills, and so on. They drew up an osteopathic bill that was accepted by our committee and by the osteopaths. If it had been allowed to go through, the thing would have been settled, as I believe, to the satisfaction of all concerned; but the doctors in the legislature evidently got the idea that we had been beaten because we had made the fight on there being an osteopathic member on our Board; and when they came to read the bill it showed that there was an osteo-

pathic Board. But, as a matter of fact, we beat them on their own ground, and then they came to us and asked us what we would agree to. We said "If you will draw up a bill allowing them to practice simply osteopathic manipulations, and nothing else, we will agree to it." That was the bill that was drawn, and that was the bill, if it had gone through, that would have settled this, I believe. Now they can do everything that they could under that bill, only there is no regulation about it. We believed that if they practiced osteopathy, pure and simple, it was none of our business; but if they were going to practice any department of Medicine, then they should go before the Board and be examined, and that they were not allowed to do. Some of the members of the Legislature thought that we had allowed them to do more than that: but the leading osteopath came to me after that bill was drawn, and said: "We can't even open a boil at the end of a finger under that bill." I said, "I know it, and that is what was intended." But that is what they expected, and that is what would have been the result. It was the fact that they had a Board; and so they thought that we had been beaten, when, as a matter of fact, they came to us and accepted exactly what we said.

In regard to the matter of the expenses, I cannot quite agree with Dr. Gehring. We should never have had a Board of Health, we should never have had a Board of Registration, we should never have had any of those things, had not members of this Society brought it before the Society. They have stood behind it, and those progressive laws have been enacted, to the benefit of all concerned. As Dr. Hardy has said, next year there will not be any appropriation: but it does seem to me, since Dr. Thompson has spoken of it, that we come here and we have not a cent to pay for our banquet, for our rooms, for anything, where we usually have to pay quite a lot wherever we go. Now why not contribute what we usually pay for our banquets, and put it into the treasury, and leave those who did not come, and so cannot enjoy it, to pay or not as they choose? We who are here can certainly afford to pay quite an assessment for what we are getting for nothing, and it will simply go into the treasury. It would seem the easiest way out of it if we have gone beyond our income. Certainly, in the talk before the House of Delegates last year, I did not understand that the condition of the treasury was such that these appropriations were going to take all the money there was in it. It was not so stated, and I did not so understand it. I think it would be a mighty good thing to have the Treasurer of the Association a member of the House of Delegates, so we can put the questions right to him and know just where we stand. I do not know that I have anything else to say in regard to the matter.

DR. GEHRING: Mr. President, in the past it has been the custom to call for the Treasurer's report on the afternoon of the second day of the meeting. It seems to me that is all wrong. After the appropriations are made you listen to your Treasurer's report. The time for the Treasurer's report is now, before the meeting begins, and before you consider appropriations at all. I think, for that reason, the House of Delegates is excusable to a certain extent for making appropriations of money which it thought was in the treasury, but which was not there.

DR McCANN: Mr. President and Members: Since I came into the practice of medicine, there has been a very great change; so that I think I cannot entirely agree with Dr. Gehring in his remarks tonight, if I understand them correctly. I believe, as the consequence, there has developed a medico-social aspect to the practice of medicine which we cannot get out from under. We have duties as teachers, individually as well as collectively. I, however, do agree with him that, if we are to be teachers of the public, it does not necessarily follow that the already much abused medical profession should suffer the expense. I believe the people who are to receive that enlightenment should help pay for it. I believe the State should furnish the money through its Board of Health to disseminate what knowledge is proper and desirable for its citizens to have. I never could see the sense of this Association employing legal talent in matters which did not directly assail its own personal interests before the legislature. I believe when our interests are invaded we should fight for them, and furnish the money to have the best legal advice obtainable; but when it comes to simple matters of enlightenment of the public, as I have already said, I do not consider it any part of our duty to furnish that money.

As to whether the deficit should be made up by assessment or by increased dues, is not clear to me. I think the worst influence in the world for any organization is a negative influence; and, if you assess the members present, as has been suggested by Dr. Thompson and Dr. Robinson, you create a negative influence with those who are not here, and their interest is not so binding. I believe the proper thing to do is to figure out your deficit, keep your dues where they are, if you continue to keep your membership where it is, and then assess the entire Association for an amount equal to the deficit to be made up; then cease spending money at the legislature.

THE PRESIDENT: I understood Dr. Thompson's suggestion was to assess every member of the Association; send a bill to those who are not here.

DR. THOMPSON: No; I said assess the members here as they are, and then send bills to the other members.

DR. ROBINSON: Can you do that constitutionally?

THE PRESIDENT: I do not know. Have you any suggestion, Dr. Gilbert?

DR. GILBERT: Well, I am more or less in accord with the sentiment expressed here. I think the legislative committee should be congratulated on the work that it did. I, for one, did not understand it until I talked with Dr. Robinson tonight. I had felt that there was some injustice in the lawyers' bills; but, as I look into the thing, I am very much impressed that it is a very fair bill and should be paid.

As to finances: On an income of \$1400 a year, and with expenses as they are now, it would look as though some arrangement must be made whereby expenses will not exceed the annual income. That has got to be done. It is no use to make up our deficit this year, and next year have to go through the same thing again. The heaviest expense, probably, will be the JOURNAL, and that can be run for less than it is now. I believe the JOURNAL is a good thing, but I am not so enthusiastic about its existence that I should object to any motion to eliminate it.

There is a wide range of opinion as to the problem of expenses of the committees. There is this much to be said about it: There are national organizations that are covering a good deal of the work that our committees are doing now; and I believe it would be better to lend our moral support, as the Treasurer has said, and not attempt to carry on, in a financial way, any part of the work, but leave it for the organizations doing that particular line of work. It seems to me, Mr. President, that some committee should be appointed to look into the finances of the organization, and endeavor, within the next twenty-four hours, to work out some feasible plan whereby our expenses will not exceed our income; and in order to bring that before the House, I will move you, Mr. President, that a committee of five be appointed by the Chair to take this question under consideration and report sometime tomorrow.

DR. HARDY: Mr. President, I second that motion. I think it is a very wise course to pursue. I do not think we ought to make an assessment until we are sure that an assessment is necessary. If it is, then that is the only thing to do.

And the motion of Dr. Gilbert prevailed.

DR. GILBERT: I would like to say, Mr. President, on the question of the assessment that, if you are going to assess, you must do so tonight, for this reason: If you let it go, it is going to be a hard thing to do. We can assess now just as we usually do for the annual banquet. It seems to me an assessment of three dollars would be small enough,

with the idea of giving the Rickers something to remember the occasion by.

THE PRESIDENT: Gentlemen, I am going to appoint that committee in a very few minutes; and I presume the committee would like some further expression of opinion from you gentlemen. Will Dr. Stanwood, while I am thinking over about this committee, continue this discussion?

DR. STANWOOD: Mr. President and Members of the House of Delegates: Being a new member of this body, and knowing that a large amount of money was being expended in different ways by the Association, I feared that something like this would come up. As one member of this Association—and perhaps I have belonged about as long as most of the members present—I believe it is the first time that an assessment has ever been asked to meet any of the liabilities of this Association. There are about 1300 physicians in the State, with about 700 belonging to this organization. The object of the organization is to get as many into the Association as possible, and thus make it a strong, virile, working organization. If you levy an assessment, you will not only wet down and smother the enthusiasm of the present members, but you will keep out many we want to get in. But we are in a dilemma. We have these liabilities to meet, and I know of no other way to get out of it than by making an assessment, which I do not individually believe in. Belonging to several organizations, I well know that when you lay an assessment upon your membership, you immediately commence to build a fence around it. Now I, for one, would not criticise our committees that we appointed to do certain work along certain lines; but I do not believe that we should have at Augusta paid attorneys doing work which belongs to us as an organization to do. I never believed in it. I was very active two or three years ago in regard to the osteopathic bill in doing what I could to bring about a reasonable bill. At that time we spent a large amount of money, as the books show, although I was not in favor of it. As far as I went, I gave my time freely, and paid my bills at Augusta. I was willing to do it for the sake of the profession. While possibly I might have been looking out for myself, or trying to, yet, so far as I know, the osteopaths have never got into my field, with one or two exceptions, and they are absolutely no good. If those are samples of the osteopaths in this State, I would not put out one cent. I understand, however, that in the larger cities, Portland, Bangor, Lewiston, Waterville and Augusta, they cut some figure; but unless, as I say, they are of better quality than those that have come back into Oxford County, the less we trouble them the better it will be.

Now as has been said, we are contributing small sums to certain committees, the Committee on Cancer, the Committee on Venereal

Diseases, and so on; also the JOURNAL. Now I say to you, gentlemen, that there is no one thing that confronts the people of the State of Maine today that has such serious and far-reaching results as the matter of venereal diseases. I am in accord with the Treasurer to quite a degree that we are not an organization of preventive medicine, but an organization of curative medicine. You may say the thing goes hand in hand; yet if we shut ourselves up and do not contribute, do not pay any attention to any of these conditions, we will not be doing our full duty. Take for instance the work done by the Cancer Committee! The whole world is alive to this subject to-day; and, if we in the State of Maine fail to contribute to a committee of that kind, I am afraid we shall be looked upon as hedging ourselves around and not performing our full duty. Now I will say this: If the moment a man arrives, he is confronted with an assessment, he is going to look a little queer. When the invitations were received a year ago to meet here, we were not supposed to have any assessment to pay. I did expect to pay a liberal amount for my room and for my food until I found out by the program sent out that we were to be the guests of the Rickers.

I hope the President will appoint the most sagacious, far-sighted and best men he can obtain on this committee, for I tell you, Mr. President, that I believe it is a very delicate situation.

DR. ROBINSON: Mr. President, I would not like to have it inferred from the Doctor's remarks that the present committee were at Augusta and having their expenses paid. I spent one day at Augusta, and I spent two days at Waterville, and I spent a good many other days for which I do not expect to receive anything; I paid it willingly and was glad to take my turn at doing it; and I think the rest of the committee were too. That bill was entirely for the lawyers.

The Doctor, it seems to me, is a little bit inconsistent when he says that we should not take any part in preventive medicine, and immediately thereafter says how important it is that we should try and prevent the spread of cancer, prevent the spread of venereal diseases, and so on. It seems to me that everything we do in regard to these things is preventive medicine; and it should be so, because the only effective modern way is by prevention. So it seems to me that you cannot apply that to one thing and leave out all the others. If this is going to be a live society, it must keep up with the times; not only that, but it must lead the times, and lead them in the right direction, and not stay back and do simply what Hippocrates and some of his followers did. This is a society that should keep abreast of the times; and, if it does that, it must lend its assistance, financially and in every other proper way, to the things that lead toward the prevention and the stamping out of disease. So it seems to me that we cannot, as a live society, leave out

all that. But I am not one who would advise going beyond our income. As I said before, I did not suppose we were doing it, from the statements made to us last year. As for having legal advice over there to Augusta, when it comes to making out bills, and that sort of thing, the lawyers are trained to do that, and we trusted them rather than attempt to do any such thing ourselves. We thought that we were carrying out the instructions that we received here. If we were not, there is where the mistake was made; but certainly I got that impression from the discussion in the House of Delegates. If you will remember, I got up several times and asked for instructions, and I thought we followed the instructions that were given us. Whatever individuals may now think about the result, we tried to follow the instructions of this body.

DR. GILBERT: Mr. President, I gathered from Dr. Stanwood's remarks that he understood my motion to be that this committee take under consideration past expenses. The motion was to work out a plan for our future expenses.

On motion by Dr. Gilbert, it was voted to adopt the Treasurer's report.

DR. ROBINSON: Let us ask the Treasurer in figures just what the deficit is that he has got to make up now.

DR. GEHRING: We are yet owing upon the appropriations made last year \$1,690, and we have in the treasury \$966, plus \$1,210 just received for dues. We have \$966 with which to pay \$1,690. The \$1,210 for dues we will need for defraying some of next year's expenses. We are behind about \$700.

DR. ROBINSON: How do you figure that out?

DR. GEHRING: We still owe \$1,690. We have \$966 to pay it with. That leaves a difference of \$700.

DR. ROBINSON: I mistook your first figures. Then \$600 is about the deficit, is it?

DR. GEHRING: It is nearer \$700; but \$1,210, if there was no deficit, would not pay our expenses for next year. These are all back bills, you know.

DR. THOMPSON: You have got about \$700 to raise this year?

DR. GEHRING: Yes, in order to pay the appropriations already made.

THE PRESIDENT: I will appoint as that committee Dr. Gilbert, Dr. Hardy, Dr. Marsh, Dr. Makepeace and Dr. Mason.

DR. HARDY: I would suggest that the Treasurer be made a member of the committee.

THE PRESIDENT: That is a very good suggestion, and I will add his name.

On motion by Dr. Stanwood, voted to adopt the report of the Legislative Committee.

On motion by Dr. Cummings, it was voted that the report of the editor of the JOURNAL be accepted.

DR. GILBERT: In response to Dr. Gehring's recommendation, I would move that we amend Article 5 of the Constitution so as to read: "The legislative and business body of the Association shall be called the House of Delegates, and shall consist of (1) delegates elected by the component county societies; (2) delegates appointed by the President; (3) the councilors; and (4) ex-officio the President, Secretary and Treasurer of this Association." This amendment to the Constitution will have to lay over one year.

DR. ROBINSON: Does that add anybody but the Treasurer?

DR. GILBERT: Just the Treasurer.

DR. STANWOOD: Mr. President, I would like to ask if that necessitates a change of the by-laws?

DR. GILBERT: No, just the Constitution.

On motion by Dr. Williams, it was voted that the Treasurer make his report at the first meeting of the House of Delegates.

THE PRESIDENT: Dr. Gehring, will you now give us your report for the Cancer Committee?

June 1, 1915.

Mr. President and Delegates:—

In December, 1914, your president appointed E. W. Gehring chairman of the Committee on Cancer to fill the vacancy caused by the resignation of F. H. Jackson.

At the last annual session, the House of Delegates appropriated \$50.00 for the year's work. During the brief period of its existence it has been the object of your committee to reach the largest number of persons with the smallest expenditure of funds. With that end in view the editor of every Maine publication was informed of our purpose to conduct a campaign of education, and his co-operation solicited. All work was done in collaboration with the American Society for the Control of Cancer and only such material as had previously been approved by the executive committee of the American society published.

Compared with the plan adopted by us for the dissemination of information, the lecture system is not only more costly but much less effectual. A perusal of the correspondence and publications herewith submitted will give an adequate conception of the character of our work.

The cost of the work has been \$24.30, bills for which have been filed with and paid by the treasurer. Respectfully submitted,

EDWIN W. GEHRING,
H. H. BROCK,
JOHN STURGIS,
Committee on Cancer.

February 26, 1915.

To the Editor:—

Being convinced that ignorance is the cause of much ill health and loss of life, the Committee on Cancer of the Maine Medical Association, collaborating with the American Society for the Control of Cancer, asks your co-operation in a campaign of education directed toward this disease.

It is our purpose to publish in the press from time to time certain *facts* relative to cancer, its early recognition and cure. Our aim is education by means of frequent, concise, truthful presentation of what is known concerning this disease that becomes destructive of life only through ignorance of early signs and symptoms and failure to institute prompt and effectual treatment.

The Press, Argus and Evening Express of Portland have expressed a willingness to publish, over the signatures of the Cancer Committee, such items as we shall send them.

We invite your co-operation in this attempt to render a much needed service to humanity.

If you do not care for the articles, please address the Chairman of the Committee to that effect.

Very truly yours,

E. W. GEHRING, M. D., Chairman,
310 Y. M. C. A. Bldg.

Committee on Cancer of Maine Medical Association.

H. H. BROCK, M. D.,
JOHN STURGIS, M. D.

March 15, 1915.

To the Editor:—

We take the liberty of calling your special attention to the articles on cancer which are now regularly appearing in the weekly Press Service of the American Medical Association. These articles are prepared by the above Society and offered for publication through the courtesy and co-operation of the Council on Health and Public Instruction of the American Medical Association. Every effort will be used to make them good readable "copy" and you will materially aid in the campaign for the reduction of the cancer death rate by selecting and using these articles as often as possible.

The foremost authorities believe that while awaiting the discovery of the ultimate cause of cancer the present extensive knowledge about the disease and how it may be prevented and cured should be more effectively brought home to the people. In a campaign of education for the earlier recognition and treatment of cancer lies the chief hope at present of checking the inroads of a disease which now ranks among the chief causes of death, taking a toll of 75,000 lives in this country every year.

The American Society for the Control of Cancer was organized to conduct such a campaign. Its purpose is "to disseminate knowledge concerning the symptoms, diagnosis, treatment and prevention of cancer, to investigate the conditions under which cancer is found and to compile statistics in regard thereto." The Society has the official endorsement of all the leading medical associations, and the active services of some of the most prominent members of the profession, but it depends for its support almost entirely upon the dues and contributions of lay members from all parts of the country.

The articles supplied to the A. M. A. Press Service are prepared under the supervision of the Executive Committee and are read and criticized by some

of the foremost scientific authorities of America. They are therefore particularly recommended to your consideration. Their effectiveness depends upon the extent to which the newspapers are able to find space for them. A marked copy or cutting from your paper when any of these articles is printed will be appreciated, but this is, of course, quite secondary to your co-operation in making some use of the material thus provided.

Very truly yours,

E. W. GEHRING, Chairman,

H. H. BROCK, M. D.,

JOHN STURGIS, M. D.

Committee on Cancer of Maine Medical Association.

P. S.—On behalf of sufferers from cancer, the American Society for the control of cancer respectfully requests that in the future you decline to publish advertisements of so-called "Cancer Cures."

Why and How Cancer Is Curable.

There is still a widespread misapprehension that cancer is a constitutional disease caused by some substance or poison in the blood. Those who hold this mistaken opinion commonly believe that the disease is hereditary, and in a vague way they think there must be some taint handed down from one generation to another which causes cancer to flourish in certain families. In the minds of people not well informed on the subject this belief may well cause a feeling that it is somehow shameful to have the disease. Such misapprehension, combined with the notion which has long prevailed that cancer is a hopeless, incurable affliction, and that it is of no use to try to have anything done for it, may well account for the extraordinary delay of many sufferers in seeking treatment. A further cause is the fact that cancer, in the early stages, often causes little or no pain. Many a surgeon has wished that cancer, in its early manifestations, might cause the sufferer half as much trouble as a toothache, for then the patient would surely be driven to seek relief so quickly that he or she would be easily cured.

That cancer is at first a local growth and not a general disease of the system is now clearly established. This fact is of the utmost importance, since it holds out a high hope of cure if the malignant growth is removed before it has time to spread to other parts of the body. Cancer beginning in one spot later appears elsewhere, because small particles or cells are carried away from the first site and start other growths, not because there exists previously some poison in the blood which causes the disease to break out in different parts of the body. The great hope of cure, therefore, lies in removing cancer entirely from the system before it has a chance to spread from its first foothold.

The reason why so many people came to believe that cancer was blood disease is doubtless because it was observed to come again in the same or other parts of the body after having been apparently cut out. It was natural to assume that when the disease kept coming back in this manner there must be some cause or taint in the blood which led to its breaking out in different places much like certain skin diseases. The trouble which started this fallacious reasoning was that in those earlier days cancer was not so well understood as it now is. Surgeons then did the best they knew how, but without the advantages of modern methods they were unable successfully to exterminate the disease. The microscope has now shown us the paths by which cancer cells start their invasion of the body if the first and local appearance is neglected. Modern surgeons are, therefore, repeatedly successful in removing the disease once for

all. As an eminent American doctor has well said, "It is not surgery, but delayed surgery that fails to cure."

E. W. GEHRING, M. D., Chairman,
H. H. BROCK, M. D.,
JOHN STURGIS, M. D.,
Committee on Cancer of Maine Medical Association.

What You Should Know About Cancer.

ITS LOCAL BEGINNING.

Cancer is almost invariably at first a local disease.

It is easily cured if promptly recognized and at once removed by competent treatment.

It is practically always incurable in its later stages.

THE DANGER SIGNS.

The disease usually begins in some unhealthy spot or some point of local irritation.

In external cancer there is something to be seen or felt, such as a wart, a mole, a lump or scab, or an unhealed wound or sore. Pain is rarely present.

Cancer inside the body is often recognized by symptoms before a lump can be seen or felt. Persistent indigestion, with loss of weight and change of color, is always especially suspicious.

Persistent abnormal discharge from any part of the body should arouse the suspicion of cancer, particularly if the discharge is bloody.

The early and hopeful stages of cancer are usually painless.

WHAT YOU SHOULD Do.

Fear the beginning of cancer.

Never be afraid to know the truth.

Any painless lump or sore appearing upon your body should be examined by your physician.

By the time a cancer has become painful the best chance for its cure has passed.

But even a painful cancer can be removed permanently if it has not extended too far beyond the place where it began.

SEEK EARLY EXAMINATION.

If you notice that a wart, mole or other "mark" begins to change in appearance or to show signs of irritation go to a physician and have it completely removed. Do not wait until you are sure it is cancerous.

All lumps in the breast should be examined. In women the normal change of life does not lead to increased flowing, which is always suspicious, as is the return of flowing after it has stopped.

MEDICINE USELESS.

Medicine which relieves pain does not have any effect upon the disease itself; it simply produces a period of freedom from discomfort and therefore delays proper treatment.

LIMITATIONS OF RADIUM.

According to the most authoritative opinion the curative effects of radium are practically limited today to superficial cancers of the skin, and to superficial growths of mucous membranes and certain deeper lying tumors of bone, etc., which are not very malignant. Radium has probably been shown to exert a defi-

nite curative effect on certain of these cases, while the disease is still local and in the early stages.

Radium definitely relieves suffering when used in the advanced stages of deeper-seated cancers; but in those cases it improves only the visible or tangible manifestations and exerts no effect upon the disseminated disease as a whole. It is believed that there is as yet no proof that radium has finally cured any case of advanced and disseminated cancer.

RADIUM FAKES.

The public should take warning against dishonest and fake, money-getting radium-cure establishments conducted by individuals who possess little or no radium, and have no knowledge of its use. These people promise cures, but are, in reality, unable to obtain even those palliative effects which are possible from radium.

The best results of radium therapy can be secured only when comparatively large amounts are available for use and the present limited world's supply of this metal places it out of reach of the great majority of patients.

A MENACE TO THE INDIVIDUAL.

Cancer is of greater frequency at ages over forty than tuberculosis, pneumonia, typhoid fever, or digestive diseases.

At ages over forty one person in eleven dies of cancer.

One woman in eight and one man in fourteen over forty years of age is attacked by the disease with fatal results.

Largely because of public ignorance and neglect cancer now proves fatal in over 90 per cent of the attacks.

A MENACE TO THE NATION.

Of the 75,000 deaths from this disease in the United States in 1913, about 30,000 were deaths from cancer of the stomach and liver, 12,000 from cancer of the uterus and other organs of generation, 7,500 from cancer of the breast, and about 25,500 from cancer of other organs and parts.

A MENACE TO SOCIETY.

Cancer respects neither race, creed, nor social position.

It is the common enemy of all mankind, attacking rich and poor alike.

Its insidious onset occurs at the most useful period of life; and death is most common at the age when the care and guidance of children and the continuance of business responsibilities make the mother and father the most useful members of society.

MESSAGE OF HOPE.

The only cure for cancer is to remove every vestige of the disease.

The only sure way to do this is by a surgical operation.

If taken at the beginning, the majority of cases of cancer are curable.

All cases will end in death if let alone.

Records of our best hospitals prove that the chances of cure are very high with early operation, and that these chances decrease with every day of delay.

Early diagnosis is therefore all-important.

E. W. GEHRING, M. D., Chairman.

H. H. BROCK, M. D..

JOHN STURGIS, M. D..

Committee on Cancer, Maine Medical Association.

May 27, 1915.

DR. E. W. GEHRING,

Maine Medical Association, No. 310 Y. M. C. A. Bldg., City.

Dear Doctor:—Mr. Bigelow has handed me your letter concerning the Cancer advertisement of James A. Solomon Company.

This advertisement came to us from Boston through our agent there. It is a contract which was made some months ago and has some little time to run yet. I am sending this particular advertisement to our advertising agent in Boston today, with the request that he take it to the originators and ask them to make their copy in the future, less alarming.

I am grateful indeed that you called the attention of Mr. Bigelow to this particular advertisement, as I had not seen it until it appeared in the paper, I regret to say.

Very truly yours,

T. E. McLAUGHLIN, *Business Manager.*

On motion voted that the report of the Cancer Committee be accepted.

THE PRESIDENT: Next is the report of the Committee on Venereal Diseases and their prevention. Dr. Whittier.

REPORT OF THE COMMITTEE ON VENEREAL DISEASES AND THEIR PREVENTION.

PRESENTED JUNE 9, 1915.

Mr. President and Members of the Association:—

During the past year the committee received in contributions \$235.00. The committee also received an appropriation of \$50.00 from the Association. The interest on the savings bank deposit amounts to \$4.44. The total receipts for the year amount to \$339.44. There is a balance of \$174.56 on hand in the treasury.

Since the last report the committee has sent out 207 letters and pamphlets to school superintendents and teachers; the teachers include the faculties of the four Maine colleges. During the year 631 letters have been sent to clergymen, 26 to physicians, 9 to W. C. T. U. officials, 3 to Y. M. C. A. officials, and one letter to a Grange official. The number of letters, lawyers, business men, and persons interested in social work amounts to 310. The total number of letters sent out, including all the correspondence, is 1541.

There has been sent during the past year 248 letters to parents of boys of grammar school age. This number added to the 1350 previously sent out, makes about 1600 letters that have been sent to parents. The number of educational pamphlets distributed during the past year is 1,626; since the committee began its work it has distributed over 4000 such pamphlets.

The number of reports distributed during the past year is 4,456. This makes over 10,000 reports sent out since the work was undertaken by the committee. The combined number of reports, letters and educational pamphlets that has been sent out during the past year is 7,871, and about 17,000 since the committee began its work.

Following are some of the organizations with which your committee has had correspondence since its last report: Health Educational League, Boston, Mass.; Washington State Medical Association, Seattle, Wash.; The Society of Sanitary and Moral Prophylaxis, New York City; American Medical Association, Chicago, Ill.; American Social Hygiene Association, New York City; The Chicago Society of Social Hygiene, Chicago, Ill.; World's Purity Federation,

La Crosse, Wis.; The Spokane Society of Social and Moral Hygiene, Spokane, Wash.; The National Institution for Moral Instruction, Baltimore, Md.

Thruout the year numerous letters of endorsement and commendation have been received. The following are extracts from some of the letters:

Mr. Robert H. Gardiner, Gardiner, Maine:

"I have been in Europe for the past two months and on my return find your letter of August 6 with the report of the Maine Medical Association. I congratulate you on the good work done."

Miss Alice M. Boring, Associate Professor of Biology, University of Maine, Orono, Maine:

"I am very much interested in the work of the Committee of the Maine Medical Association on Venereal Diseases and their Prevention, and believe ardently in this work."

Professor Halbert H. Britan, Department of Philosophy, Bates College, Lewiston, Maine:

"I have been much interested in reading the account of the work you are doing and feel that it deserves the co-operation of every intelligent person."

Professor Emeritus M. C. Fernald, Department of Philosophy, University of Maine, Orono, Maine:

"I am thanking you for your letter, circulars and other literature that your committee is using in your effort to check the ravages of venereal diseases. I desire to express my large appreciation of the rescue work you are trying to perform."

Rev. G. P. Benner, Monmouth, Maine:

"I have received your communication relative to the work of the Committee on Venereal Diseases. I thank you for the privilege of co-operating with you in this matter."

W. A. McCormick, General Secretary, Young Men's Christian Association, Bath, Maine:

"Will you please send me a half dozen copies of 'The Boy's Venereal Peril?' I think I can use the copies to advantage and they give the information much better than I could myself."

President Mary Little Thompson, Young Women's Christian Association, Portland, Maine:

"I have a deep interest in the work you are attempting to do."

Professor Alfred W. Anthony, Lewiston, Maine:

"I am interested in the most worthy work that you and your associates are carrying on for the health and moral welfare of our youth, and I am very glad to aid in the prosecution of such work."

Dean James N. Hart, University of Maine, Orono, Maine:

"I have read the book with interest and have placed it in the hands of my older boy. I wish all high school boys might read the book with proper advice. Your committee is certainly doing a good work."

Superintendent Frederick Palladino, East Maine Conference of the Methodist Episcopal Church, Bangor, Maine:

"The work you are doing is very important, and the danger confronting our nation from these sources is very great."

Mr. Michael M. Davis, Jr., Director Boston Dispensary, Boston, Mass.:

"I notice that you comment on the lack of a satisfactory pamphlet for girls. I think that the general feeling is that such a pamphlet would meet a need, and it occurs to me to ask whether, through the many contacts that you and your committee must have with parents, it would not be possible to get a list of questions such as mothers say are actually asked by girls, or which ought to be asked or answered."

Following is a summary of receipts and expenditures to date:

Contributions 1911-1914,	\$680.00
Maine Medical Association Appropriation 1912-13,	50.09
Maine Medical Association Appropriation 1913-14,	50.00
Interest accrued previous to June, 1914,	28.75
	\$808.75

RECEIPTS OF 1914-1915.

Maine Medical Association Appropriation 1914-1915,	50.00
Contributions received since June 10, 1914:	
Mr. Robert H. Gardiner, Gardiner, Maine,	\$100.00
Miss M. S. Davies, Trefethen, Maine,	5.00
Mrs. John F. Hill, Augusta, Maine,	25.00
A Friend, Portland, Maine,	10.00
Mr. Charles A. Dean, Boston, Mass.,	25.00
Mr. S. W. Philbrick, Skowhegan, Maine,	10.00
Mr. R. W. Eaton, Brunswick, Maine,	10.00
Mr. C. H. Payson, Portland, Maine,	25.00
Principal W. E. Sargent, Hebron Academy,	5.00
Mr. W. K. Sanderson, Portland, Maine,	2.00
Dr. Estes Nichols, Maine Sanatorium, Hebron,	5.00
Mrs. Margaret Deland, Boston, Mass.,	3.00
President R. J. Aley, University of Maine,	5.00
Mr. Paul D. Sargent, Augusta, Maine,	5.00
Professor A. W. Anthony, Lewiston, Maine,	10.00
Professor C. T. Burnett, Bowdoin College,	10.00
Hon. F. H. Appleton, Bangor, Maine,	20.00
Professor Arthur J. Jones, University of Maine,	1.00
Professor W. H. Hartshorn, Bates College,	2.00
Dean L. S. Merrill, College of Agriculture, Univ. of Maine,	3.00
Professor Alice M. Boring, University of Maine,	1.00
Professor J. L. McConaughy, Bowdoin College,	1.00
Professor F. E. Woodruff, Bowdoin College,	2.00
Total subscriptions 1914-1915,	285.00
Interest on Savings Deposit since June, 1914,	4.44
Total receipts since 1911,	\$1,148.19
(Total Receipts 1914-15, \$339.44.)	

EXPENDITURES.	
Prior to 1914-1915.	
Approved bills paid by treasurer,	\$ 50.00
Literature,	2.50
Telegram,	.25
3,000 Copies "The Boy's Venereal Peril,"	60.00
Postage,	113.41
Clerical work,	255.94
Express,	5.85
Printing and stationery,	68.30
	————— \$556.25
1914-1915.	
2,000 copies "The Boy's Venereal Peril,"	\$ 40.00
Postage,	57.00
Clerical work,	253.25
Express,	6.07
Printing and stationery,	60.20
4 dozen Sex Hygiene Pamphlets,	4.00
	————— \$420.27
Total expenditures since 1911,	\$976.52
Balance on hand in Brunswick Savings Institution,	\$171.67

Your committee feels that of the different plans for the prevention of venereal disease in Maine, the following offer the most at the present time:

1. Assisting in awakening the people of Maine to the dangers of venereal disease.
2. Assisting in some degree to establish higher ideals of sexual morality.
3. Arousing parents to a sense of responsibility in regard to the sexual morals of their children.
4. To call the attention of parents to the need of arousing in developing boys and girls a feeling of responsibility in regard to the health and welfare of their future families.
5. To assist in awakening public opinion to support officers of sanitation in applying modern hygienic methods to the control of venereal disease.

Your committee hopes that its work is contributing towards the carrying out of these plans and asks that the committee be continued.

(Signed) F. N. WHITTIER, Brunswick.
 A. L. STANWOOD, Rumford.
 E. E. HOLT, Portland.
 A. S. THAYER, Portland.
 R. A. HOLLAND, Calais.

DR. WHITTIER: I have preserved all the vouchers, and I have the bank book with me, and I would be very glad to have all the accounts audited.

I have found that the necessity of safeguarding their future families appeals strongly to boys at college. The possible dangers cannot be held out to them too strongly. Boys love danger; they love to take a

chance; but when you put before them the danger to their future families, the danger to people dependent upon them, it does make a strong impression on the average, normal, college boy.

Your committee has tried to actually do something to carry out all these objects. Its members have taken the opportunity to make addresses in behalf of sex hygiene at different times and at different places in the State.

Your committee has corresponded with the officers of societies devoted to this sort of work all over the United States, and the work has received a good deal of commendation from various societies. Your Committee feels that perhaps the Association may have received some credit by reason of the work along this particular line. We have received numerous letters from the department of the American Medical Association that deals with this same question of the prevention of venereal diseases, complimentary in regard to the work done here in Maine. The great work that we have tried to do is to get in touch with the parents in different parts of the State, and present simple literature dealing with the dangers of venereal diseases, and urging the parents to give such information to their boys as they saw fit to do. We put the whole work on the parents, and perhaps do not deserve credit for anything more than calling the attention of parents to the evils. While we have not been so vigorous, perhaps, nor done so much as many of the friends of the movement would like to have us do, I will say that the committee has received very little criticism for what it has done. It has tried to work along conservative lines, and has tried to work in such way that the progress, while it may be slow, will be sure, and there will be no reaction. We have tried to help mould public opinion so that when legislation comes to support this work, as we believe it will come later on, there will be a public opinion in this State that will back up such legislation as may be adopted.

Your committee asks that the aid may be continued, and for an appropriation of fifty dollars for next year. As I understand from the Treasurer, fifty dollars is already to our credit on the books of the Association; that is, in the five years having drawn only \$150, it will not be necessary to make any additional appropriation at this time. But we would like to feel free to draw the fifty dollars for the next year.

On motion by Dr. Robinson, the report was accepted; and on further motion by Dr. Robinson Dr. Marsh was appointed auditor to look over the accounts, as requested by Dr. Whittier.

DR. GILBERT: Mr. President, it seems to me that we are getting away from our present financial status. I think the Treasurer has

given a very fair and true statement of conditions as they exist today. I have gone over his books and can vouch for them, and I think the auditors will find the condition as he has stated. The committee appointed has to do only with looking into a plan whereby we can run within our income in the future; it has nothing to do with any plan for making up this deficit. Therefore I move you, Mr. President, that we be assessed three dollars per member at this session, the assessment to be taken at the desk at the time of registration.

DR. MASON: I would like to ask if that covers all the members of the Maine Medical Association?

DR. GILBERT: I think it would have to cover them all. Collect of the members present, and simply send a bill to the rest. I think that the assessment ought to cover the deficit, and that there be a fund whereby we can give the Rickers a present and a good one, something costing two or three hundred dollars; something of value.

DR. CRAGIN: Mr. President, I have been listening with a great deal of interest to this discussion, and there are one or two things that have not been cleared up in my mind which I would like to have cleared up. If I understood Dr. Gilbert's report correctly as to the JOURNAL, there is about \$500 surplus this year; that is, after all expenses are paid. Now if there is \$500 surplus, why have we got to assess?

Another thing I would like to speak about relative to this matter of assessment! I know two or three young men who are coming here to this session who cannot really afford to come. They are earnest young men, and they are going to be good men in their profession. I know that they have made an effort to come here, and I know that the chances are that, if they are met with an assessment at the desk, it is going to make quite a little difference about their coming to meetings in the future. I know that if we made an exception in favor of these men that they would be very much upset about it; because I do not think any young man during his first few years of practice likes to have it pointed out that he is not making a great deal of money. There is that thing to be considered at this meeting.

DR. BUNKER: As a Councilor, I want to speak on this matter of assessment. My head is not very good at figures; so perhaps I have not thoroughly understood the actual condition of our finances. But this is the way I understand it: That including the money that has been paid in for the 1915 dues, we have plenty of money on hand to pay all our bills and some left over. Now as I understand the Treasurer's report, several of the appropriations made last year have not been expended, a matter that Dr. Cragin has just spoken of. Dr. Gilbert has not used his whole appropriation, and he also made the

remark that the JOURNAL could be published at still less expense than it has been in the past year, if I understood him correctly. Is that right, Doctor?

DR. GILBERT: I will explain it when you get through, Doctor.

DR. BUNKER: I, for one, am perfectly willing to stand any assessment that this Association thinks ought to be placed on its members, either to pay past bills or to pay those which may arise in the future; but as a Councilor my duties are, as I understand it, to do my best in the three counties I represent to get more members in the county societies for the purpose of building up this organization. Therefore, I am opposed to making an assessment. I know how hard it is to collect the county and State dues now. I know that the Treasurer or the Secretary has to get out and hunt them up, and almost get down on his knees and beg some of them to pay, so that he can report their names as not suspended. Now we want a bigger and better organization; we do not want to limit it. We want every man who is the right kind of a fellow, whether he has been in practice three months, six months, a year, ten years, or twenty years, to join this Association. If we start in with the dues too large, we are going to keep out a lot of the young men, just the kind of men that Dr. Cragin has mentioned. I believe that this matter can be arranged by this committee that has been appointed so that we can pay the outstanding bills, and continue to run this organization on a two-dollar-a-year basis. Let us keep down our appropriations; let us keep the expenses of our Association down as small as we can, and not assess the young man who is just starting out, who has got a lot of bills to pay, and no money with which to pay them, and who is paying interest on a lot of his college bills. Let us not do anything to shut those fellows out; let us encourage them; let us invite them to become members of this Association, and make the dues so small that they can afford to come in. I do not consider that our financial status is so very bad; I cannot see it that way myself. I wish my personal financial condition was as good as is that of this Society; I shoud feel pretty happy about it. We have got the money paid in here; got it on hand. How many of us collect our money in advance that we live on for the year to come? I do not. I see no reason why we should make an assessment on the members at this time. I am speaking now, not personally, but by reason of the office I hold as Councilor for Kennebec, Somerset and Waldo counties. Waldo County last year was a dead issue, and the principal cause of that was the matter of expense. I know that Dr. Millett—and I wish he were here now—has reorganized that society and has got a few members back, (not many of them, but some) so that we have a Waldo County society at this time. Some money has been sent in, and some men have been placed in good standing. We

want to be careful about this assessment business, the way I look at it. For a couple of years now the legislative committee will have no expenditures to make. We have another meeting of this Association before the Legislature meets again. Why not wait until we get to that awful place that we have got to make an assessment or go into bankruptcy before we make it? As I said before, personally I am perfectly willing to stand any assessment that may be made upon every member of this organization; but I am opposed, as has been suggested, to assessing only the members who are here at this time because we are not any great expense. I have attended every medical meeting for the last twenty years that it has been possible for me to attend, and I should have attended this one even if I had had to pay my bills. I am opposed to being assessed on the ground that this is a cheap session for us; that is not a fair proposition. I hope this committee will take this assessment question under serious consideration before they report or make an assessment, for an assessment will hurt your Society, gentlemen, just as true as the world.

DR. MASON: Mr. President, as representing Washington County, and as the Secretary of the county society, I would like to say that perhaps there is one point that has not been taken up until the last gentleman spoke; that is, the effect upon the present members. Four years ago the membership in our county was rather small. By persistent effort it has been built up until now, out of 46 practitioners, 40 are members of the society. One of the things that it has been most difficult to explain to the men whom we have endeavored to obtain as members, has been why they should pay three dollars; but, after a great deal of explanation, it was gotten through the most of their heads that two dollars went to the maintenance of the Maine Medical Association and the JOURNAL, and the other dollar went to the maintenance of the county society. But a good many of them pay that simply for the reason that it is placed directly before them that, unless it is paid, they are practically not in good standing; and I was obliged last year to point out to two men that they had lost insurance business simply because they had neglected to pay their dues, and the insurance companies had written me in regard to their standing. Just the moment that we assess them one dollar, two dollars, or three dollars, on top of the present three dollars, we will drop members from our Society like leaves falling in the Autumn. The first thing they will say will be: "We pay you enough now. How is it that we have got in a hole?" You cannot explain to them; they simply will not listen to it.

Another thing is the question of the appropriations! Will you tell me, Mr. Treasurer, if you please, how much unexpended balance there is from the appropriations for the committee and the JOURNAL?

DR. GEHRING: The JOURNAL is still entitled to \$500 of the appropriation which was made for it last year.

DR. MASON: How much is the Cancer Committee entitled to?

DR. GEHRING: The Cancer Committee is entitled to \$25; the Committee on Venereal Diseases is entitled to \$50; the Committee on Public Health is entitled to \$40, and the Committee on Public Policy and Legislation is entitled to \$750.

DR. MASON: There is how much in the treasury outside of the dues collected for the purpose of paying the expenses next year?

DR. GEHRING: \$966. I will put it another way—I seem to have created confusion here—by saying that I want this \$1,210 for the purpose of meeting next year's bills; and I will say that after all these bills are paid, there remains in the treasury \$486 with which to do next year's work.

DR. WHITTIER: Mr. President, I am in touch, on account of my occupation of teaching, with a number of young men in the profession, and coming into the profession, graduating from the Medical School, and I talk over with them frequently the problem of their going into the Maine Medical Association. I want to back up the opinions of the last two speakers by saying that it will make a difference in regard to the younger members of the profession coming in if they feel that they are going to be subject to assessment. It seems to me that it is the best policy of the Association to keep down the appropriations. Take for instance the appropriation for the Committee on Venereal Diseases! The thing that we are most anxious for, I believe,—and I think I am speaking for the other members of the committee—is that we want the backing of the Association, and we would like to have a small appropriation each year to show that backing in tangible form. It does not make very much difference to us whether the appropriation is \$25 or \$50, because we raise the main part of the money that we use by contributions. We have raised \$1,150 in all, and only \$150 of that has come from the Association. It seems to me that the thing to do is not to put on an assessment, but to cut down our appropriations, and to devote ourselves to building up the membership of the Association. It has been built up, as we have seen, very largely in the last few years; and I hope that we can go on building it up and have a membership of 1,000 instead of 700, and do all the work that it is necessary for the Association to do without incurring any deficit, and without making it necessary to put on any assessment.

DR. MARSH: Mr. President, I would like to ask Dr. Whittier if he already has \$171 to his credit.

DR. WHITTIER: I understand that I have \$171 in the bank, and I think I have \$50 to my credit, if I understand the report of the Treasurer correctly, in the treasury of the Association; so that we would not be obliged to ask for any appropriation from the House of Delegates for next year.

DR. MARSH: I would like to ask, as a member of the Committee, if you could run your committee on this \$171 for the next year without any appropriation?

DR. WHITTIER: I would not ask for any additional appropriation beyond what we already have. I understand that we have the \$50. I think the committee would be in favor of not asking for any additional appropriation for next year, and I am not sure but the committee would be willing to give back to the treasury a part of the money that is in the treasury now to our credit.

DR. MARSH: And do I understand, Dr. Gilbert, that your bills are all paid, and that you have to your credit \$500?

DR. GILBERT: I may as well try to make this clear. I have here the annual report of expenditures per month of the JOURNAL. It is of no use to go into that other than to state that the total cost of the JOURNAL, printing, mailing, and all that, was \$1,933.14. We had \$1,000 appropriated from the Maine Medical Association; from advertising we received \$1,131.28. That gave us \$2,131.28 for the year. That left us a little better than \$125 or \$150, somewhere there, that we did not use. We also had a cash balance the year before. We probably will have to depend on this cash balance on account of the uncertainty of getting advertising. Next year we might get twelve or thirteen hundred dollars' worth of advertising, and we might have a slump, and we have got to have a balance to go and come on. We have looked on it as a reserve fund. It seems a better policy to leave it there and take less out of the State treasury from year to year; and keep down the annual expenses. Personally, my feeling is very strong that we ought in our figuring to lessen the regular expenses. Where there is a balance left in the treasury, I think it ought to be left in a way so that your committee can carry on their work. I have been all through this for five years, and by working in that way I have been able to create a balance here, and have something to work with. It has been said that it is hard work to collect your dues. It is no easy task to run the JOURNAL, and we have very many problems facing us. It would be better for the JOURNAL if that could be left there, and take less out of the State treasury for the next year, and not figure that as an asset now. If you strip the whole thing, you will have us where we cannot carry on our work as easily.

DR. MASON: I would like to know what you have due you from our Society?

DR. GILBERT: \$500.

DR. MASON: Your bills are paid and you have \$500 due you?

DR. GILBERT: \$500 due us.

DR. STEWART: Mr. President, as Secretary of the Oxford County Society I want to express my opinion as being somewhat adverse to making an assessment on all the members. We represent here the more enthusiastic ones, and, while we personally would not mind an assessment, we have shown our interest by coming. I think that the more enthusiastic members are appointed as delegates. We have quite a percentage of members that it is hard to collect from, though I am pleased to say that in Oxford County everybody has paid up to date. It is the only year that I can find a record of where any such condition has existed. I think we all agree that the value of the society depends upon our members, and I am sure that is true of the county society. If we can keep about all the county members in the society, they will be guided more or less by the wishes, suggestions and resolutions passed in the society; whereas if there are only about one-half or two-thirds that are members, our influence in the county is not very great. So to my mind it is of the utmost importance that we have the largest membership we can possibly get. I cannot help feeling that in our county an assessment on the members, especially those who are not here, would be very undesirable, perhaps would throw some of them out, and at least would have a very bad effect, particularly if they should find out later that a part of that assessment went to pay for the hospitality which we here are enjoying and they cannot. If a man gets in debt, with no reserve to draw on, he has to cut down his expenses, not only enough to meet his current bills, but to pay his past bills; otherwise he would have to carry over his deficit for a year or two. I can see no objection to carrying over a small deficit here for a year or so, and, if we are obliged to, make an assessment then. There is \$50 from Dr. Whittier that has not been spent, \$40 in another place, \$500 in another, \$25 in another, and \$15 in another. The bill of \$750 I believe is all that we are owing, and that is a bill that we are not likely to have again. There will not be any money needed for legislation for two years at least, and it seems to me we would then be almost out of the hole. Now, personally, I have no objection to an assessment. I am willing to pay two or three dollars; but if we try to collect from those back home, from those who are not very much interested anyway, it will be difficult. They will not like to keep getting letters that they owe two or three dollars, and the county secretary will be affected by it. I just

wished to say these few words for the folks back home, whom we need with us, and whom we are trying to keep in line.

DR. THOMPSON: Mr. President, I do not think anybody wants an assessment if we can get along without it; if there is any way that can be devised for carrying things along. As Dr. Stewart has said, I think almost every county society this year has increased its membership; not only that, but very few have been suspended. I know it will be hard to collect an assessment, but you have got to do something. If we can arrange to carry the bills along from year to year, I think we would all agree to that.

DR. CRAGIN: Mr. President, I would like to make a motion.

THE PRESIDENT: There is a motion before the house.

DR. GILBERT: I think my motion has served its purpose, and therefore I withdraw it.

DR. CRAGIN: I would like to make a motion that this matter of an assessment be left until we hear the report of the committee of six.

DR. STANWOOD: I rise to ask a question for information. Two or three years ago there was talk of merging, speaking of the JOURNAL, and having a Tri-State Medical Journal. Has anything come out of that? Have any overtures been made?

THE PRESIDENT: I do not know of anything, Doctor. Will you state your motion again, Dr. Cragin?

DR. CRAGIN: I move that we defer this question of assessment until the report is made by the committee of six which you appointed.

DR. ROBINSON: In seconding that, I would like to suggest that we instruct that committee not only to take up the present financial condition, but to make some recommendations about appropriations for this coming year.

DR. SYLVESTER: Mr. President, it is said that doctors are poor business men, and we seem to be living up to our reputation. I wonder if the thing could not be gotten at, what Dr. Gilbert is driving at, in a little better way, by asking this committee to report in the morning as to the advisability of our making a voluntary contribution. Ninety-nine per cent of those in attendance would not go away if we were asked to make a voluntary contribution of say two dollars and clean the slate. That would be a debt of honor; but I am absolutely opposed to an assessment.

There are some matters which we have talked about in regard to our past bills. I do not feel as though I ought to discuss them, and still I know there are a lot of us who have certain opinions in regard to the lawyers' bills that have been incurred. There is quite a feeling

that that was a mistake. That does not come up tonight. We will get at it in due season after this committee's report tomorrow. The matter of our arrearage is a very slight thing, even if it is \$600; but the matter of living within our income for two or three years is a very vital thing. All we need to do is to live within it for two or three years and pay all our bills.

Dr. Cragin's motion then being put to a vote was unanimously carried.

THE PRESIDENT: We will now hear the report of the Visitors to the Medical School of Maine. Dr. Makepeace of Farmington.

Mr. President and Members of the House of Delegates:—

Your committee spent three days in May visiting all the departments of the Medical School of Maine and we wish at once to express our sincere appreciation of the many courtesies shown us by the Dean, Dr. Addison S. Thayer at Portland and the Assistant Dean, Dr. F. N. Whittier at Brunswick and the other members of the faculty whom it was our pleasure to meet.

Fifteen members of the teaching faculty were consulted, five lectures heard, three classes working in laboratories inspected and five clinics witnessed. Especially interesting clinics were seen at the Children's Hospital, the Maine General Hospital and the Edward Mason Dispensary. At Brunswick, not only the Medical Building, but all the other departments of Bowdoin College were visited for they are all used by the medical students. The hospitals at Lewiston were also visited and while they are not included in the list of institutions used for clinical instruction in this school, there is an abundance of clinical material available here.

We desire to report the following interesting facts:

Resources: Bowdoin College has interest bearing funds amounting to \$2,312,552.42 of which \$188,000 belongs to the Medical Department.

Equipment: The Medical Building at Brunswick is four stories high and contains two large lecture rooms, pathological laboratory, physiology laboratory, anatomical museum and dissecting room which occupies the entire top floor. Of the fourteen buildings of Bowdoin College, medical students more especially use the Mary Frances Searles Science Building (for chemistry, biology, embryology, etc.) and Hubbard Hall with its library of 108,000 volumes. In this building one room is devoted entirely to the use of medical students and here is found over 5,000 volumes comprising the library of the Medical School of Maine established in 1820. In Portland a very extensive library, the property of the Maine Medical Association, is also available to the medical students at the Maine Eye and Ear Infirmary. In Portland the Medical Building on Chadwick Street contains lecture rooms, bacteriological laboratory, pathological museum and a room for instruction in minor surgery and work on the cadaver.

Clinical instructions are given at the Maine General Hospital, Maine Eye and Ear Infirmary, Portland City Hospital, Children's Hospital, Marine Hospital, Portland Tuberculosis Class, Female Orphan Asylum, St. Elizabeth's Orphan Asylum, Holy Innocents' Home, Maine School for the Deaf, Maine School for the Blind and at the Edward Mason Dispensary, the last a gift to the Medical School of Maine by the late Hugh J. Chisholm and his wife.

Faculty and Course of Instruction: There are sixty-five teachers, six of whom are full time instructors. A course of four years of thirty-six weeks each

with over 4,000 hours of instruction is given which conforms to the requirements of the American Medical Association. Beginning in 1916, two years attendance at a Literary College will be required as a preliminary training before beginning the medical course.

Your committee was especially impressed with the vast amount of clinical material available, the character of the student body, most of whom are graduates of literary colleges, the marked interest in the students and the welfare of the school shown by the different instructors and the exceptional opportunities for laboratory work at the Science Building at Brunswick. Dr. Thayer's clinic in Medicine at the Maine General Hospital, Dr. Pingree's clinic at the Children's Hospital and Dr. Welsh's clinic on tuberculosis at the Dispensary were very practical and interesting and the work of Dr. Smith in Physiology with the very fine Harvard apparatus is to be highly commended. We found Dr. Whittier in bacteriology, instructing the third year men on vaccines and they were all doing Wassermann's.

It is our opinion that the Medical School of Maine is doing thorough practical work in the hands of instructors who are competent and enthusiastic. The standard is high in the Grade A group of the American Medical Association classification. The one very essential thing necessary to give the School an even higher standing, is a larger interest bearing fund and your committee would recommend that the alumni of the School and the members of this Association at least use all possible influence to secure a larger income for the use of the School.

In our opinion the Medical School of Maine should have the unqualified endorsement of every member of the Maine Medical Association.

Signed: B. F. MAKEPEACE.
FRANK E. LESLIE.

On motion voted that the report be accepted and printed.

THE PRESIDENT: Before I forget it, gentlemen, I appoint as the committee to audit the Treasurer's books, Dr. Stewart of South Paris, Dr. Mann of Houlton, and Dr. Cragin of Waterville.

THE PRESIDENT: Next is the report of the delegate to the American Medical Association last year, Dr. Gilbert.

Mr. President and Members of the House of Delegates:—

To those not familiar with the workings of the House of Delegates of the American Medical Association, it might be interesting to outline, briefly, the work as carried on.

During the early part of the session, committees are appointed to represent the separate departments of the American Medical Association, usually five in number, three of whom are experts in the particular line for which the committee is appointed. For instance, of the committee on Public Health, of which the writer was a member, one man was a government expert, while two other members were prominent in health work, so that all matters coming before this committee were dealt with in a logical manner and the reports finally submitted by the chairman, Dr. J. W. Kerr, Washington. All matters introduced in the House of Delegates relating to public health were submitted without discussion to this committee, which was in session at various intervals during the day. At the committee meetings, there was free discussion and the committee either endorsed, modified or refused to endorse the proposed measure

and the matter finally came before the House for discussion and, as a rule, it supported the action of the standing committee.

This was equally true of the other committees and one can readily see that, if a member is to be of any value in the House of Delegates, he should serve from year to year. The states doing the most active work are those who elect their delegates to serve for a number of years so that they become familiar with the workings of the House and are not only valuable members to the House itself but to the State Association in the annual meeting of its House of Delegates as some few questions come up of national importance and the advice of such a man would be very valuable. A member serving in the National House of Delegates has no time to attend the meetings of any of the sessions.

Having no desire to further serve Maine in the National House, I have no hesitation in urging upon the House of Delegates the importance of electing one man who is willing to devote the time to this sort of work and will attend the majority of the national meetings.

Respectfully submitted,

FRANK Y. GILBERT.

On motion voted that the report be accepted.

THE PRESIDENT: There are Councilors from three different Districts here. Can we not get their reports in? I will call for the report from the Second District, Androscoggin, Franklin and Oxford counties. Dr. E. S. Cummings.

Mr. President and Members of the House of Delegates:—

I herewith present my annual report as councilor of the second district. Sept. 28th, 1914 I visited Oxford County Medical Society. There were 17 members present and Dr. Richard F. Chase of Portland gave an interesting paper entitled "Therapeutic Value of Some Digestive Preparations." The paper was discussed by all present and it was a lively meeting. Oxford is in a prosperous condition, holds quarterly meetings, has 38 members and a good attendance at meetings considering the long distance some have to go to attend. There were two applications presented for membership. I am sorry to say that again I have been unable to visit Franklin County Society as in the Fall I did not know of the meeting in time and in May was unable to leave town the day of the meeting. I understand however that they are flourishing. They hold quarterly meetings. I have attended most of the meetings of my own Society, Androscoggin, and we are in a flourishing condition. We hold monthly meetings except July and August, have 57 members, have taken in 9 new ones the past year and have lost two members by death, Dr. B. F. Sturgis and Dr. E. W. Russell. We have an average attendance of 25. At one of our meetings this Spring we had the pleasure of listening to Dr. John Lovett Morse of Boston who gave two very interesting papers, the first being "Treatment of Constipation in Infancy and Childhood" and the second "Treatment of Enuresis."

Respectfully submitted,

E. S. CUMMINGS.

On motion by Dr. Stanwood, voted that the report be accepted.

THE PRESIDENT: Dr. Mason will report for the Fifth District.

DR. MASON: Dr. Webber, the Councilor for the Fifth District, comprising Washington and Hancock Counties, is unable to be present.

I know that he has not been able this year to visit Hancock County, and I can make but a fragmentary report for Washington County. The number of physicians is 46; number of members of the Society, 40; new members voted in during the year, 3; applications pending, 2; removed from the State, 1; removed to another county, 1; suspended for non-payment of dues, 2. The number of meetings held during the year was three. I will say right here that we have practically abolished formal set papers in the Society. The meetings are devoted almost exclusively to clinical cases and case reports. By that I mean detailed written reports, and the papers that are read are only something bearing on the subject. For instance, last year we had one session devoted to the surgical kidney, which was preceded by a resume of the subject from a pathological and anatomical point of view. There have been reported in clinical cases and case reports during the year, 36. 8 clinical cases have been presented for examination, and 28 detailed case reports. Average attendance at the meetings, 20. That is lower than usual, because it has been an exceedingly busy year with our physicians down there. The distances are long and the train service inconvenient, and it is not always easy for them to get together.

Voted that the report be accepted.

DR. A. F. WILLIAMS: Mr. President and Gentlemen of the House of Delegates: I will submit my report for the past year as Councilor of the Third District.

Mr. President and Gentlemen of the House of Delegates:—

The meetings of the Sagadahoc County Society are held every three months and are well attended as a rule. The papers presented are most interesting and are usually read by outside men. This Society is in a very prosperous condition and its members include about every man in the County.

I had the pleasure of attending a recent meeting of the Knox County Society held at Rockland, and found there a flourishing Society of twenty-five members. Much interest is felt there and plans are being made for future meetings of both professional and social interest. The meetings of this Society are held every two months.

Lincoln County has no Society because its towns are so widely scattered, but most of the physicians living in this County have become members of the nearest neighboring County Society.

Respectfully submitted,

A. F. WILLIAMS.

Voted that the report be accepted.

THE PRESIDENT: We will now listen to the report of the Councilor from the Fourth District, Kennebec, Somerset and Waldo Counties, Dr. Bunker.

DR. BUNKER: Mr. President and Gentlemen: I have no written report to make, and I have not the details from the secretaries of the different societies. Kennebec County has gained in membership; that

I happen to know. Waldo County has been reorganized with a few members. I am not able to make any report as to Somerset at this time, but I am in hopes to do so before the meeting closes.

Voted that Dr. Bunker be given more time for his report.

THE PRESIDENT: Gentlemen, I have made one mistake here. The Councilors should audit the report of the Treasurer. Therefore the committee I appointed will be excused from that arduous and strenuous duty.

DR. THOMPSON: Mr. President, I notice in the by-laws that the Councilors constitute a finance committee, and that all funds voted by the House of Delegates must pass through their hands first, and come back with a recommendation, and then that is passed by the House of Delegates. I do not think this has ever been done; I know it was not last year. On reading the constitution and by-laws, I see that the Council shall constitute the finance committee. Further along, as to appropriations, it states that funds may be appropriated by the House of Delegates to defray the expenses of the Association, etc., and then it says that all resolutions appropriating funds must be referred to the Finance Committee before action is taken thereupon. So that hereafter all appropriations are supposed to pass through the hands of the Finance Committee before the House of Delegates can make final action upon them.

DR. ROBINSON: That committee that has just been appointed, then, should report to the Council?

DR. THOMPSON: No, they can report here; but if you make any appropriations, those appropriations must go to the Council for approval, and are then referred back to you again. They are the Finance Committee, and you have the final say.

Adjourned.

SECOND MEETING OF THE HOUSE OF DELEGATES.

June 9, 1915, 9 A. M.

Meeting called to order by the President.

THE PRESIDENT: It seemed best to have a meeting of the House of Delegates this morning. Dr. Gilbert, we will listen to your report.

DR. GILBERT: Mr. President: The committee has taken under consideration the financial situation of the Association, and makes a

series of recommendations, and some amendments to the Constitution. I am inclined to think they will have to be taken up and acted upon as individual items. I do not believe it can be made a budget and put through.

THE PRESIDENT: Would it not be better to read all the suggestions of the committee, and then act on them separately?

DR. GILBERT: First, the Committee recommends that the unexpended appropriations revert to the treasury, to be used, together with dues paid to June 1st, 1915, to pay all indebtedness of the Association.

Second, cut out all appropriations for the coming year save that for the JOURNAL. We recommend an appropriation for the JOURNAL of \$1,000; editor's salary cut \$100; Secretary's salary cut \$100; and Treasurer's salary omitted.

Third, abolish the President's and Councilors' traveling expenses, and expenses for badges, for the coming year.

Fourth, we recommend that Section 3, page 14 of the by-laws be amended, by striking out that part providing a salary of twenty-five dollars per annum for the Treasurer.

Fifth, a recommendation that the offices of Secretary and Treasurer be vested in one individual.

F. Y. GILBERT,
T. E. HARDY,
R. T. MARSH,
MASON MAKEPEACE,
Committee.

That, gentlemen, is the report as outlined and discussed last night. One other recommendation has been made, suggested by Dr. Hardy, and the members I have spoken with are in favor of it, namely, a recommendation that a similar committee be appointed each year to fix this budget before any action is taken by the Association.

THE PRESIDENT: Gentlemen, you have heard the report of the committee. It would seem better to follow Dr. Gilbert's suggestion and act on these recommendations separately. Now, Doctor, if you will read that first recommendation, please.

DR. GILBERT: "That the unexpended appropriations revert to the treasury, to be used, together with the dues paid to June 1st, 1915, to pay all indebtedness of the Association." I might say in connection with that that the books of the Treasurer have shown the dues paid to June first to be used for the next year's expenses, and still the bills as sent out are sent out for dues for the year ending June first of this year. That has been the bone of contention, whether we have a deficit or whether we have a cash balance. It seems to me that if we close the Associa-

tion's affairs, we would use the dues payable for this year, which would be the dues always sent ahead for the next year's expenses. In that way we can settle all our bills, straighten up the affairs of the Association, and have a cash balance.

On motion by Dr. Stanwood, it was voted to adopt the first recommendation of the committee.

THE PRESIDENT: Dr. Gilbert, read the second recommendation, please.

DR. GILBERT: "It is recommended to cut out all appropriations for the coming year save that for the JOURNAL. "It would seem that this would open the question whether you want to continue the JOURNAL or discontinue it.

DR. STANWOOD: What are you going to do with your money that you collect for dues if you cut out the JOURNAL?

DR. GILBERT: The money would be used as was done heretofore.

DR. STANWOOD: How about your contract for advertising?

DR. GILBERT: That would be terminated when the JOURNAL went out of existence?

DR. MASON: Mr. President, in connection with this recommendation to cut out all appropriations, I think there is another thing that we did not mention in the committee meeting last night. Last year it was recommended, I believe, that a meeting of the county secretaries be held in December of each year, and also recommended that the State Association pay the hotel bills, if I remember rightly, as well as the travelling expenses. I think that while we omitted to consider this, it should be taken into the recommendation. I think almost any Secretary would be willing to pay his own expenses for the sake of appearing at that meeting; and I am rather inclined to think, judging from the spirit of our own Society, that, if necessary, the county societies would pay the expenses.

On motion by Dr. Hardy, it was voted that the recommendation of Dr. Mason be included in the recommendation.

THE PRESIDENT: There is plenty of time to discuss the proposition put up by Dr. Gilbert. What is your pleasure to do with the entire recommendation?

DR. BUNKER: Mr. President, it seems to me we are running from one extreme to another on this proposition. Last night we discussed an assessment of three to five dollars, and to-day we are considering the proposition of cutting down all appropriations, even those for bills for our next meeting. It does not seem to me that we need make such a strenuous effort to close this matter up this year. Some of us expect

to be alive next year, and some of us expect to go to the medical meeting next year. The suggestion that all unexpended appropriations last year revert to the treasury I believe to be right; but, if that is done, I believe we should make an appropriation again this year. I do not think we should ignore these appropriations,—for instance, the appropriation for the Cancer Committee and that for the Committee on Venereal Diseases. Dr. Whittier as chairman of the Cancer Committee has done good work and collected a lot of money. It does not seem to me that we ought to ignore him. He said last night, very courteously, that he would get along all right without the appropriation this year, if we would just leave that appropriation that was made last year; and he also said, if I understood him correctly, that we could pay it about any time we saw fit.—this year, next year, or some other year, when we can see our way clear to pay it. As I say, it seems to me that if that is to revert to the treasury, we had better make another appropriation, as a matter of recognition at least, so that he may feel that he has the moral support of our society. It is only a matter of a few dollars, and, if we do not clean it up this year, we will next year or the year after. I think it is too sweeping to say that we will cut out every appropriation except that for the JOURNAL. It does not make a particle of difference to Dr. Whittier, or to the Cancer Committee, as I understand it, whether we leave that appropriation, or whether we take that and then make another one; but I think those two committees ought to be recognized either one way or the other.

DR. HARDY: Mr. President, the proposition presented to your committee last night was to devise some method of keeping within our assets for the next year: and we found that, to do that, it would be necessary to cut out all these appropriations. That is applicable to this year alone. Next year we can do what our financial condition then warrants. This year our financial condition does not warrant those expenditures, if we are to keep within our income, which will be a little less than \$1400. We have made these suggestions for this year only. Next year, if the finances of the Association warrant it, we can have badges, and appropriate for these special committees: but, in order to meet the suggestions made to us last night that we keep our expenses for this year within our income, we found it necessary to recommend as we have. We discussed this matter until half-past twelve this morning, and it seemed the only way possible.

DR. MARSH: Mr. President, I would say, to explain to Dr. Bunker our reason for cutting out the Venereal Diseases Committee appropriation, that Dr. Whittier has in his hands already \$170 to carry on the work for another year: so we thought we could do away with this appropriation for one year. Next year we can appropriate whatever we choose.

DR. BUNKER: Excuse me! Either you misunderstood Dr. Whittier or I did. That includes the \$50 that was appropriated to make the \$170, does it not?

DR. WHITTIER: No, it does not, Doctor. I have \$170 besides that.

DR. CRAGIN: Mr. President, as I understand it, this recommendation of the committee is simply to keep within our income; it does not mean that we have got to abide by it. That is what the meeting is for this morning, to discuss ways and means of meeting our bills for the next year. Some provision has got to be made for them; there is no question about that. We cannot go along as a society and not do certain things. There are certain things that we must do, and it seems to me that our credit as a society, and our individual record of the past years, ought to be sufficient to enable us in some manner to provide for these incidental expenses which are bound to accrue in any society of this size.

THE PRESIDENT: Dr. Gilbert, do I understand that incidental expenses were included? There has been no appropriation made for those incidental expenses at any time has there?

DR. GILBERT: The next item for consideration would be the JOURNAL, \$1,000; Editor, \$100; Secretary, \$100; cutting salaries in two. The incidental expenses for last year were \$170. They can easily be brought within the range of \$100; so that, with the recommendations of the committee here, the total expenses for next year ought not to exceed \$1,350 or the \$1,400 annual dues. That is what your committee has been working to accomplish.

THE PRESIDENT: As I understand your recommendation, it does not include the abolishing of those incidental expenses for this year; only stated things.

DR. MARSH: I believe not, Mr. President. As I remember it, there was \$175. If we had appropriated \$1,000 for the Journal, \$100 for the Secretary, \$100 for the Editor, and \$25 for the Treasurer, there would then remain \$175 for incidental expenses.

DR. BUNKER: I believe badges were mentioned in the recommendation.

DR. MARSH: It was mentioned that we cut them out. We simply recommended that.

DR. GILBERT: The article you are discussing now is merely the appropriations for committees. Later the other things come in.

THE PRESIDENT: Gentlemen, are you ready for the question? What is your pleasure to do with this second recommendation of the committee? I am ready to entertain a motion.

DR. CRAGIN: Mr. President, let us be sure before we vote. As I understand it, it is simply to cut out the appropriations which have been made for the committees.

DR. GILBERT: The three committees.

On motion by Dr. Cragin, it was voted to accept the second recommendation.

THE PRESIDENT: Now, Dr. Gilbert, go on with your report.

DR. GILBERT: Perhaps we had better skip the next one, and take up this one as to the abolishing of the traveling expenses of the President and Councilors, and expenses for badges, the coming year.

DR. STANWOOD: Mr. President, I move you that we adopt the recommendation.

DR. WHITTIER: Mr. President, I would like to know how much the expense for these things has been for the last year.

THE PRESIDENT: Dr. Gehring, can you give any light on that point to Dr. Whittier?

DR. GEHRING: I do not remember the figures, Mr. President, and I have not the book here. I remember one bill of \$45 presented by an individual for traveling expenses incident to his duties in the Association; another one for \$32; and they ranged all the way from that down to \$10. I think the first one I mentioned was the largest.

DR. HARDY: I think they total about \$200.

DR. GEHRING: Something like that.

DR. STANWOOD: Mr. President, I for one would stand up here and vote all day to pay the traveling expenses of the President of this Association, whoever he may be. If we are going to split hairs, and are getting down where we cannot pay our President his traveling expenses, we had better close up. I withdraw my motion to pass the resolution.

DR. WILLIAMS: Mr. President, I do not know how the other Councilors feel; but so far as concerns any expense that I have been under, I have never rendered a bill, and never intend to.

DR. STANWOOD: Mr. President, does not this carry the idea that the President of this Association shall be cut out?

THE PRESIDENT: Yes, sir.

DR. STANWOOD: I object to it.

DR. GILBERT: I would like to say that the feeling was this: that the President's office is an honorary office, and, being such, that they would be perfectly willing to pay their own expenses in going about. Your committee was aiming to keep this thing down within reasonable limits, and was working with that end in view.

DR. STANWOOD: Do I understand, Mr. President, that the President of this Association is to go about paying his own traveling expenses?

THE PRESIDENT: That would be the result.

DR. STANWOOD: I earnestly object to it. I object to men of our caliber cutting down the President's traveling expenses and such things as that in going about the State. The county societies like to have the President visit them once in a while; but, if he is going to be compelled to pay his own expenses, I do not want to belong to an organization that has got down to so small a point as that is.

THE PRESIDENT: There is no motion before the house, now, gentlemen.

DR. BUNKER: Will Dr. Gilbert read that recommendation again?

DR. GILBERT: It is recommended to abolish the President's and Councilors' traveling expenses, and expenses of badges. That embodies three items.

DR. BUNKER: And that recommendation comes under what number?

DR. GILBERT: That would be No. 4 as we have it.

DR. BUNKER: Mr. President, I move that recommendation No. 4 be rejected. (Motion seconded.)

THE PRESIDENT: Is it the pleasure of the Association that Dr. Bunker's motion be given a passage?

DR. MASON: Mr. President, I would like to inquire in what way and how the Association is going to make up that amount of money that will be expended. As I have understood it, the Association was practically in the hole, and it was up to us to devise ways and means to get out and keep out for this next year. Now as I understand it, the President's and Councilors' traveling expenses will amount to something like \$200. There is \$200 that we have got to find out of that \$1,400. We want to avoid assessments above all things. I think it was pretty thoroughly threshed out in the committee that an assessment in any way for the purpose of making up a deficit of this kind would be a very disastrous thing in the county societies. The question came up how we could make up for that sort of thing, and we were instructed to retrench in every possible way until we got on to our feet.

DR. ROBINSON: It has occurred to me, Mr. President, that, under the circumstances here this year, we could easily raise anywhere from three to four or perhaps five or six hundred dollars by subscription. While I have no money to burn, and what little I have I have worked for, I would be willing to give even five dollars to help out at

this time. We are going to have a large meeting, and I think we can raise from three to five hundred dollars by subscription. Let every man give what he pleases, and there are lots of us who would be willing to give from two to five dollars. According to my way of thinking, the proper way to do is to have Dr. Gehring, the Treasurer, read his letter in the JOURNAL to the full meeting, and ask the members to give whatever they feel disposed. Make it all pleasant; no assessment! We would not expect the young men to give anything, as the most of us who have been in practice, ten, twenty or thirty years, are perhaps better able to give five dollars now than we were one dollar ten, twenty or thirty years ago. It seems to me that there is a spirit of good feeling here, and, as our expenses are nothing, that we can pay from one to five dollars, and thus raise from three to five hundred dollars easily. I believe that can be done, the thing cleaned up, and not cut down these small expenses, particularly the badges and traveling expenses of the President. Those things are a necessity. I believe we can do this and not one of us mind it. This will help us out of our financial difficulties, and I guess when we get out we will know enough to keep out: at least I hope so. If we do not get all out this year, we can finish up next year. That is my idea of it. I may be wrong, but I think that is the way to do it, and avoid unpleasant conditions of placing a bill of three dollars in the face of every man who comes in here today, as was suggested last night.

THE PRESIDENT: Gentlemen, the question before the house is the rejection of the recommendation of the committee. Is there anything further to be said?

DR. HARDY: Mr. President, it does not occur to me that it is necessary to make any contribution or anything of the kind. If we are economical in our expenditures, we have got money enough to take care of them, as your committee figured it out last night.

In regard to the expenses of the President and the Councilors, many members of the Association freely serve on various committees and pay their own expenses: and I do not believe that any man who is elected President of this Association, or who is appointed Councilor of this Association, would object in the least to paying the expenses that he incurs in that way. If we cut those things out, the solution is complete, and we are within our appropriation. Then, in time to come, if our financial condition warrants our paying these expenses, we can pay them.

DR. STANWOOD: Mr. President, I, for one, object to this body going on record as cutting out the traveling expenses of the President of this Association. I will stand anything else: but when men of our

caliber and standing in the community feel that we cannot pay the traveling expenses of the President of the Association, I think it is high time that something was done. I do not believe in it. I do not think it looks well for a body of educated men, as we pretend to be, to do such a thing. I do not think we would be serving the incoming President right, whoever he may be, to ask him to go about among our county societies and pay his own expenses. I, for one, object to it.

DR. MASON: Mr. President, I move that we lay this motion on the table, and proceed with other business.

And Dr. Mason's motion prevailed.

THE PRESIDENT: Dr. Gilbert, there is another recommendation there.

DR. GILBERT: That we appropriate for the JOURNAL \$1,000, the Editor, \$100, the Secretary \$100. That, together with about \$150 incidental expenses, would make the total year's budget about \$1,350.

On motion by Dr. Stanwood, it was voted to adopt the recommendation of the committee.

THE PRESIDENT: What is the next recommendation, Dr. Gilbert?

DR. GILBERT: The Treasurer's salary is the only salary provided for in the constitution, and that is twenty-five dollars. It seemed to the committee wiser that the office of Secretary and Treasurer should be merged and one salary paid. The first recommendation is in relation to the by-laws, that we amend by omitting the line which reads: "He shall be paid a salary of twenty-five dollars." This can be acted on tomorrow, as the by-laws can be amended on twenty-four hours' notice.

On motion by Dr. Williams, it was voted that the recommendation of the committee have a passage.

DR. GILBERT: The last recommendation is that the office of Secretary and Treasurer be vested in one individual. It was the view of your committee that that could be done without modifying the by-laws or the constitution, as has been done in the county societies, thus merging and cutting out the expense end of it. Your committee recommends that.

DR. BUNKER: May I ask, Mr. President, if our constitution requires that the Treasurer and Secretary shall give bonds?

THE PRESIDENT: The Treasurer gives a bond; I do not think the Secretary does.

DR. BUNKER: Does the Secretary collect the dues?

DR. THOMPSON: The constitution states that the dues shall be sent to the Secretary, and he sends them to the Treasurer. The Secretary has the check before him and also the number of members. He

credits on the roll the members paying their dues, and after that sends check to the Treasurer.

DR. BUNKER: All the money paid in is paid to the Secretary first?

DR. THOMPSON: Paid to the Secretary first, and he sends it to the Treasurer.

DR. BUNKER: The Treasurer has to give a bond and the Secretary does not?

DR. THOMPSON: Yes.

DR. BUNKER: I cannot see the reason for that.

DR. STANWOOD: Mr. President, does not the Society purchase the bond?

THE PRESIDENT: Yes.

DR. BUNKER: I understand that the Society pays for the bond; but it seems a little inconsistent that one should have to furnish a bond and the other not. If the money goes into the hands of the Secretary first, why should not he furnish a bond, as well as the Treasurer?

DR. STANWOOD: I understand that the proposition is to merge the two.

DR. BUNKER: There has been no restraint whatever placed upon the Secretary in the office. He receives all the money, but he has not been bonded. In merging these two offices we could purchase one bond which would cover the two as Secretary and Treasurer. Then he would be bonded both ways. Heretofore he has not been.

DR. THOMPSON: The constitution also provides that all monies paid out shall be countersigned by the President and Secretary. If you merge these offices, you only have one man, the President, to countersign all the bills. I do not know as this makes any particular difference. I simply call the fact to your attention.

DR. WHITTIER: Mr. President, it seems to me that we are departing somewhat from the spirit of the constitution, and I question the advisability of doing it. The constitution provides these different duties for the Secretary and Treasurer, and it does not seem to me that we ought to pass this recommendation as a means of getting around the constitution. If we are going to change things, we ought to change our constitution to fit the new conditions. It seems to me that we ought not to give this motion a passage.

DR. MASON: Do I understand that the county societies are governed by the constitution and by-laws, for county societies as adopted by the American Medical Association?

THE PRESIDENT: I think so; I do not know for a certainty.

DR. MASON: The Article regarding officers says that there shall be a President, Vice-President, Secretary, Treasurer, practically as it reads in the constitution of the State Association. Now with regard to the question of acting, or not, according to the spirit of that constitution, the House of Delegates recommended to the county societies last year that they make the office of Secretary and Treasurer one. I do not know what the other county societies did, but Washington County did just that. The same objection holds good in the county societies in regard to the question of the spirit of the constitution as it does here. The House of Delegates recommended this last year, and I think that it probably has been passed all over the State.

On motion it was voted that the recommendation have a passage.

THE PRESIDENT: Is there anything further at this time from your committee, Dr. Gilbert?

DR. GILBERT: It seems advisable in handling this financial problem, rather than to do as in the past, to have a committee appointed early in the session by the House of Delegates to take care of this budget of appropriations and the expenses of the Association; and with that in view your committee recommends the appointment of such a committee at the first meeting of the House of Delegates to prepare a budget covering the expenses for the ensuing year.

DR. THOMPSON: I move you that the Councilor for each District be appointed on that committee. They are more or less in touch with the different county societies, and their conditions; and it seems to me that as they have so little work to do here, they might at least be appointed on that committee—a finance committee.

THE PRESIDENT: You make that as an amendment to Dr. Gilbert's motion?

DR. THOMPSON: Yes, that the Councilors be appointed on the Finance Committee. This would be a special committee before the Delegates meet to recommend certain things. As it is now all appropriations passed here by the Delegates go before the Councilors and then come back.

THE PRESIDENT: Do you accept the amendment, Dr. Gilbert?

DR. GILBERT: I would second Dr. Thompson's motion. I did not make a motion; merely a recommendation. I second Dr. Thompson's motion that the Councilors be instructed to act as a Finance Committee in relation to the appropriaions.

Dr. Thompson's motion then received passage.

DR. SYLVESTER: Mr. President, your committee in regard to the Ricker Brothers is preparing some resolutions along the line indicated.

The question has come up as to when you would wish them presented, whether at the banquet tonight or at the close of our entertainment.

DR. WILLIAMS: I move you, Mr. President, that the House of Delegates meet after the adjournment of the afternoon session to hear the report of Dr. Sylvester's committee.

DR. GILBERT: I would amend that by suggesting that they meet at three o'clock this afternoon.

Dr. Williams' motion, as amended by Dr. Gilbert, then received passage.

Adjourned until three o'clock this afternoon.

THIRD MEETING OF THE HOUSE OF DELEGATES.

POLAND SPRING HOUSE, JUNE 10, 1915, 8.30 A. M.

Meeting called to order by the President.

THE PRESIDENT: We will now listen to the report of the Councilor from the Sixth District, Dr. Dickison.

Dr. Dickison: Mr. President, I have not much to report this year, as I have not been able to get around very much. In Aroostook County, the conditions are excellent. We have nearly every doctor in the society there. We meet twice a year and have a large attendance. In Piscataquis County they meet about every three months. I was there two months ago and their attendance was quite large. They also have a large percentage of the men in the county belonging to the society. I have not been able to visit in Penobscot County this year, but expect to do so the next.

Voted that the report be accepted.

DR. THOMPSON: I have here the report of the auditor on the accounts of the Committee on Venereal Diseases, who reports them correct.

Voted that the report be accepted.

THE PRESIDENT: Gentlemen, the place of meeting next year is to be settled by the House of Delegates this morning.

DR. STANWOOD: Mr. President, you all know that we men in the western part of the State are guilty of the crime, if it is a crime, that they had all rather go to Portland than anywhere else in the western

part of the State. I know it is an inconvenience to some of the eastern men to travel so far; still Portland being the Queen City of the State, and being the center of all activities, is a beautiful city to meet in; and I move you that the Maine Medical Association meet in Portland next year.

DR. DICKISON: Mr. President, I second the motion; and I would like to say that, as far as I know, the men in the eastern part of the State had rather go to Portland than any other place. It is much more convenient to get at for one thing. Men in our part of the State like to go to the city, and I think they would much prefer to have it in Portland.

DR. STANWOOD: There is one thing that I wish to say, Mr. President, and that is, that it seems encroaching upon the good will of our Portland friends; they may seem to feel under some obligations to entertain the members of the Association. Now I like to accept hospitality, but I feel a little uncomfortable to accept hospitality so often from our friends in Portland. I presume they do this more out of courtesy than love, for I do not know that medical men really love each other so very well. It seems to me that we ought to get over that in some way or other.

DR. CUMMINGS: Mr. President, I have felt that way; but on talking with some of the Portland men they have told me that it costs less to entertain us than to go to some other city and hold a meeting and pay traveling expenses. They think that they are getting out of it very easily if they entertain us in the manner that they have.

DR. GILBERT: Mr. President, I think Cumberland County would be very glad to entertain the Association, and they enjoy doing so.

Dr. Stanwood's motion being put to a vote, it was unanimously voted that the next meeting of the Association be held in Portland.

DR. MARSH: Mr. President, the Nominating Committee begs leave to submit the following report:

For First Vice-President — Dr. H. B. Mason, Calais.

For Second Vice-President — Dr. Harry Snow, Milo.

For Secretary and Treasurer — Dr. J. B. Thompson, Bangor.

Councilor, First District — Dr. F. N. Whittier.

Councilor, Second District — Dr. George E. Pratt.

Committee on Scientific Work — Dr. E. W. Gehring, Portland; Dr. H. E. Milliken, Portland; Dr. John B. Thompson, Bangor (ex officio).

Committee on Public Policy and Legislation — Dr. D. A. Robinson, Bangor; Dr. T. E. Hardy, Waterville; Dr. S. J. Beach, Augusta; the President and Secretary ex officio.

Committee on Venereal Diseases and Their Prevention — Dr. F. N. Whittier, Brunswick; Dr. A. L. Stanwood, Rumford; Dr. R. A. Holland, Calais; Dr. W. F. Hart.

Committee on Necrology — Dr. James A. Spalding, Portland.

Cancer Committee — Dr. S. E. Webber, Dr. H. H. Brock, and Dr. W. M. Spear.

Delegates to American Medical Association — Dr. W. C. Peters, Bangor; Dr. H. L. Bartlett, Norway.

Visitors to the Maine Medical School — Dr. Frank E. Leslie, Andover; Dr. Frank E. Sleeper, Sabattus.

Delegate to the National Legislative Council — Dr. W. G. Chamberlain of Fort Fairfield.

Delegate to National Council on Medical Education — Dr. A. S. Thayer, Portland.

Chairman Committee on Public Health among Women — Dr. Lucinda B. Hatch, Portland.

Committee on Health and Public Inspection — Dr. Lucinda B. Hatch, Portland; Dr. S. J. Bassford, Portland; Dr. C. B. Sylvester, Harrison.

Committee to represent Maine Medical Association at the State Anti-Tuberculosis meeting — Dr. A. L. Smith, Machias; Dr. T. E. Hardy, Waterville.

Voted that the report of the Nominating Committee be accepted.

THE PRESIDENT: Dr. Gilbert has not yet reported as delegate to the National Legislative Council.

DR. GILBERT: Mr. President, I was not there. I intended to look up some data, but I have been busy with other work. Later on, if I get time, I will go over the data and make out a report, inserting it in the record. I would like to say, Mr. President, as to the officers voted on, that it seemed to me wise, having in mind the matter of program, that the Committee on Scientific Work should have one member with Dr. Thompson in Bangor. I do not think Dr. Gehring is interested in the work sufficiently to take it up, and it seems as though that belongs in Bangor. And rather than have the mix-up we have had heretofore, I thought possibly some change might be made in that committee.

DR. ROBINSON: What are the duties of this committee?

DR. CRAGIN: Mr. President, I will say as a member of the Nominating Committee, that we did not know what the work of that committee was; we wondered whether the program committee came in there. Perhaps the personnel of that committee was made up under a misapprehension of facts.

THE PRESIDENT: I see no reason why the committee cannot retire on that part of the report and fix it up. (Committee retires.)

DR. HARDY: Mr. President, I move that we listen to the report of Dr. Bunker, Councilor for the Fourth District.

Dr. Bunker: Mr. President, I have not got this report written out; but I can in a few moments tell you about it.

Somerset County has a membership of 17. This is a gain of two over last year. One member was lost by death, and three have been transferred to other counties. They held two meetings during the year. The society is in a very healthy condition considering the locality. As you know, Somerset County is a large county, with several little villages, and none of them very central; so it is particularly hard for them to get together very many at any one time.

Kennebec County has 66 members in good standing. This is a gain of four over last year. Kennebec County lost two active members by death, and lost two by their moving out of the State. This society is in a very flourishing condition.

Waldo County last year lost its place in this Association. There was no report made in regard to the county whatever. No one paid dues, and so it was absolutely lost; but it has been revived, and I think there are now eight members in good standing. We anticipate getting quite a good many more into the society before next year.

Voted to accept the above report.

DR. MARSH: Mr. President, your committee labored under a delusion. We understood that this scientific committee had something to do with scientific work, and we thought that Dr. Gehring would be a very good man for that position; but, as we looked over the pack, we found that there was a joker in it, and this joker seems to be Dr. Gilbert; so we have put Dr. Gilbert back on this program committee on the scientific work.

DR. GILBERT: Mr. President, I specifically request not to be placed back on that committee; still I want to see the thing done right. I raised this question that this scientific work was the work done in securing papers presented. I have had five years of it, and I feel as though I should like to unload a little.

Voted that the amended report of the Nominating Committee be accepted.

THE PRESIDENT: Let us dispose of the election of officers. As I understand it, there is no reason why, on a proper motion, the Secretary cannot cast the ballot for the officers as reported by the committee.

On motion by Dr. Cummings, it was voted that the Secretary cast the ballot for the officers as named by the Nominating Committee.

The Secretary then cast the ballot of the Association for the of-

ficers and committees nominated, and they were declared by the President duly elected.

DR. MARSHALL: Mr. Chairman, I do not know whether Dr. Hardy intended to present a motion looking toward a change of our rules regarding the reading of papers. He said that he had talked with a number of the members, and they felt that, because a member had read a paper, he should not be barred from reading another within a reasonable time. I think that there is a rule that they shall not do so within five years. He said that he was going to bring the matter up, but he is not here at this moment.

DR. GILBERT: Mr. Chairman, I think this is a rule that the program committee has made for the reason that there are members who would read each year. The committee would be glad to have them as it would make their work easier but from an organization standpoint, there would be trouble. Each year that I have been on the program committee this question has come up, and it seems to me desirable to fix a rule for the committee to work on. I should think that, with our membership of 700, and with the opportunities that some of those men have, with only twelve papers a year, it ought to be so that any man out of the 700 could present a paper. If you allow members the latitude of presenting a paper whenever they want to, you are going to make the work of the committee hard. I think that is a matter that should be left with the committee to regulate.

DR. MARSHALL: Personally I agree with Dr. Gilbert. I only brought that up because Dr. Hardy said that he wanted to bring it up. I have no personal interest in the matter.

THE CHAIRMAN: Then it is the sentiment of the house that the reading of papers at the general sessions be left with the program committee.

Voted to adjourn.

FOURTH MEETING OF THE HOUSE OF DELEGATES.

THURSDAY NOON, JUNE 10, 1915.

Meeting called to order by the President.

DR. GILBERT: Mr. President, I was speaking with Dr. Bunker, and I am sorry he is not here, about the advisability of a mid-winter

session of the Association, and I wish to bring it before the House of Delegates at this time. The thought suggests itself to me in meeting men and talking with them that perhaps we do not meet often enough; and I think there is a sentiment that we do not meet often enough as a State organization. I have discussed the matter somewhat, and many seem to think it quite a feasible idea to arrange for a one day mid-winter session, having papers, perhaps getting the Mayos here from Rochester and one or two strong men, meeting as the guests of the Kennebec County Society or the Penobscot County Society, wherever it may be found desirable, holding the meeting far enough toward the eastern end of the State to be accessible to the Aroostook and Washington county members who cannot take the time to come to Portland. It seemed advisable to lay this before the House of Delegates meeting here, have it discussed and see what the sentiment may be about it.

THE PRESIDENT: Gentlemen, you have heard Dr. Gilbert's suggestion.

DR. WILLIAMS: Mr. President and Gentlemen — I think perhaps Dr. Gilbert's suggestion is very good; but I doubt the feasibility of this Association, as an association, having another meeting in the year. If any county in the State would invite us to attend their meetings, I think that would be very nice. As for calling a special meeting of this Association, I doubt the advisability of it.

DR. ROBINSON: Mr. President, I should be very much afraid that such a course would develop into two associations, an eastern and a western association; and, if they had attended one Association meeting, they would not feel the necessity of attending the annual meeting. I believe that that sort of a wedge would split this Society wide open in a very short time.

THE PRESIDENT: It would seem that the matter of getting together oftener might be brought about in the different Council districts; that each District might unite, at least once a year, to considerable advantage.

DR. ROBINSON: That I think woud be all right; but the two meetings of this Association I should be afraid of.

DR. SYLVESTER: Mr. President, it seems to me that Dr. Williams' suggestion is a good one if we can have it in fact without setting up the machinery of the State Association. If a certain county association would like to have us at a certain time in the eastern part of the State, why let as many go as can.

DR. STEWART: It seems to me, Mr. President, that your suggestion of three or four different counties uniting to have a meeting

is a good one. I have thought since I have been here that we can get more out of our own meetings than we can out of this meeting. That, offhand, would seem to be my idea.

DR. McCANN: It does not seem to me wise.

DR. CUMMINGS: When it was first suggested, Mr. President, I thought it was a good idea; but after some of the ideas just expressed, it seems to me now that perhaps it would be better not to do it. I should be in favor of your suggestion, Mr. President. Of course, we could not take any definite action in regard to it, but we could pass a motion that it would be our advice that the Council Districts hold, at least once a year, a joint meeting of their component societies.

DR. DICKISON: Mr. President, I should be opposed to more than one meeting of the Association a year; but, of course, I am in favor of as many other kinds of meetings as we can have.

DR. DONOVAN: Mr. President, I believe that we do not meet sufficiently often; do not get sufficiently acquainted; and whatever method would bring that about would be the most desirable. I feel that it is too much to try to have another meeting of this Association; but I would be in favor of the meeting of our county societies as suggested, and I feel that would bring about a better acquaintance.

DR. THOMPSON: I think the idea of the meeting of the neighboring county societies, or those in the various districts, would be the more acceptable one; either the county districts or those societies which are near each other.

DR. HARDY: Mr. President, I do not believe there is any great danger of our having too many meetings. I think the more often we get together, and the more closely acquainted we become, the more benefit we will derive from the Association. The best method of accomplishing that I do not know; but I do not believe there is any danger of too many meetings. I think the danger is that we will have too few.

DR. CRAGIN: Mr. President, I feel as Dr. Hardy and Dr. Donovan feel, that the meetings cannot come any too often. I certainly get enough benefit out of these meetings so that I would be very glad to attend a number in the course of the year; but it cannot be done unless we all agree to it. If certain members of the House of Delegates think it cannot be done, I believe we had better not have the meetings. It cannot be done unless we all get together.

DR. HILL: Mr. President and Gentlemen—It seems to me that a mid-winter meeting, while it would be very enjoyable, would be very thinly attended. At that time of year there is a great deal more sickness, and physicians are more apt to be detained at home than they are

in the summer. If it could be a fall meeting, it would be enjoyable and an advantage; but it seems hardly probable that a meeting of the Maine Medical Association in mid-winter would have attendance enough so that it would be a success. There is an element that I can see that might creep in, as Dr. Robinson has said. People, perhaps, in the vicinity where this mid-winter meeting was held might feel that if they attended that meeting they would not go to the summer meeting; and for these reasons, I am afraid it would not be a success.

DR. HART: Mr. President, on the spur of the moment it seems to me that there are at least three reasons why we should not change the present order of things. In the first place, the majority of us are practicing medicine for the benefit of our patients and ourselves, as a necessity, of course. Secondly, we have our county societies which meet anywhere from once in a few months to twice a year, giving a chance for each one of us in our county societies to expend our surplus energy in discussing medical matters. Thirdly, it is with much difficulty that some of us are able to attend the Maine Medical meeting once a year. Again, the session of the Maine Medical Association is one of the great yearly events of the physicians of the State of Maine; and it seems to me that, if we attempt to get together as a State organization oftener, we will detract somewhat from the honor and dignity and the pleasure of meeting, as we attempt to do, once a year. Therefore I think that the present order of things is better than the proposed change.

DR. STANWOOD: Mr. President, I should be afraid, if we encroached in any way, shape or manner on the State Medical Association, we should be advocating something that we would regret. I, with Dr. Robinson, think it would be a wedge which might open a large chasm; and, as has been so well said by Dr. Hart and others, we should do nothing to detract from this most instructive and pleasant time that we have yearly. I would favor, however, a meeting of the different counties in our Council Districts. I think that would be a very nice thing to do. I should be pleased to attend, and I would vote for any such thing as that.

DR. WHITTIER: Mr. President and Delegates—I agree with the last speakers that the great thing is to get out a full attendance at the State meetings. It is a fine thing, and we have made a good start within the last few years, and I think we should keep on. I agree with the speakers, too, that if we should have a mid-winter meeting, it would be likely to detract somewhat from the attendance at the annual meeting. People would attend the mid-winter meeting and let it go at that. I do feel that a meeting of the county societies together,

those that make up the Council Districts, would be a fine thing; and the promotion of more visiting between the county societies I think is fine. The great thing is to get big State meetings and big county meetings.

DR. BUNKER: Mr. President and Gentlemen—This matter was brought to my attention this morning, and it struck me as being a very good thing to do. I have spoken to quite a number of the members, and those that I have spoken to have said that they thought it would be a grand thing if we tried to get together again, as many of us as could, in October; sometime before the traveling got bad. We thought that we could get a large attendance; that there were enough members throughout the State that would be glad to attend. Of course this would not in any way interfere with our annual meeting. There would be no officers elected, and no business transacted that would in any way, shape or manner interfere with our annual meeting. Such was not the intention. It would be simply getting together, as many of us as possible, for a social gathering and for a meeting that would be of benefit, I have no doubt, to all who attended it. The social element of this Society I believe is a strong element. The oftener we get together, the better acquainted we get one with another, the less likely we are to forget each other. I for one believe it would be a grand thing for us to attempt to have a meeting sometime in October.

DR. GILBERT: Mr. President, when this thing started, it started with a good deal of enthusiasm; but evidently it is now somewhat dampened. In regard to the matter of two Associations, I cannot see how that would be brought about. The same House of Delegates that meets here woud meet there. It is the same body right through. I think there could be a meeting of the Association called together for a one day session when the roads are fairly good, and that it could be made an attractive session; the ladies not to be invited; just the physicians. The thing appeals to me very strongly. I do not think this would detract the least bit from our usual two hundred and fifty and odd men we get at the June meeting. On the other hand, I think it would tend to stimulate the interest in that meeting. Then, again, legislative problems come up; and it seems to me that if we could establish mid-winter sessions, we would be in position to meet in Augusta at an opportune time and meet the men in the legislature, and we might be able to do business to a little better advantage than we are doing it now. The idea, as I say, appeals to me very strongly. and I do not think it would add much work, and in fact no expense to the Association, to do this. I have not the slightest question that the plan is an absolutely feasible one, and I believe it would work to our advantage.

THE PRESIDENT: The chair will entertain any motion that anyone cares to make.

DR. DICKISON: Mr. President, when I spoke first in regard to the matter, I had in mind that it was coming in the winter time, which is almost an impossible time to get men together up in our part of the State; but if this meeting was held in October, it would put a different phase on the matter so far as I am concerned. I think a great many men in my part of the State would be glad to attend a meeting at that time,—a meeting perhaps in Bangor. So far as splitting the Society is concerned, I have no fear of that. What I had in mind was that a mid-winter meeting would be very thinly attended. A meeting in October might perhaps be a novelty, and I think we might get out a good attendance. It is pretty hard to get men together; but if you can get them together, and get them to mix in a little pleasure and a little profit, sometimes they will do it; but they will not always turn out for profit alone.

DR. STANWOOD: One idea has just occurred to me. Men are very much alike in all walks of life. We men who are interested in farming more or less know how the Bangor Fair, the Waterville Fair and the Maine State Fair have been clashing. Now the thing came about by trying to have meetings that would vie with each other, and each pulling away from the Maine State Fair. Every one who is conversant with the methods and work that has been going on there, knows how it has hurt the Maine State Fair. There is a great feeling between these different organizations. Now it occurs to me that if we should have a mid-winter meeting that should in any way take the name of Maine State Medical Association that it might work a hazard. As I said before, men are very much alike no matter what vocation they are in; and we might possibly get into the same dilemma that the Maine State Fair has got into.

DR. BUNKER: Mr. President, I wonder if Dr. Stanwood really knows what he is talking about, or whether this is all imagination on his part. I have been President of the Central Maine Fair for three years; and, if there has been any friction between the Central Maine Fair and the Maine State Fair at Lewiston, I have not known of it, and I think I have been in a position to have known of it had there been such. Dr. Stanwood is absolutely wrong as to this. The Eastern Maine State Fair and the Central Maine State Fair have never damaged the fair held at Lewiston; it has been the weather, the act of God, that nearly flooded that fair. When we had for three years three fairs without a pleasant day, that was what came near flooring us; but thanks to the support that was manifested throughout this section

up towards Lewiston, the fair never was on such a good footing as it is today. If I were to manage the Central Maine Fair year in and year out, I wish there were a dozen other fairs in the State of Maine as good as that held at Lewiston; it would help us every time. It is to get the spirit into the hearts of men to go to the fairs, and the farmers to take their produce and their cattle. That is also what we want in order to make our annual meeting a large meeting. We have got to get the spirit of going to meetings, and the spirit of rubbing shoulders one with another. It will make our annual meetings larger if we have some other meetings during the year, in my opinion.

DR. ROBINSON: I was only thinking when I spoke of a little matter of history, Mr. President. For thirty years every annual session of the Maine Medical Society was held in Portland, and any attempt to get it anywhere else was frustrated. Finally it began to be talked all through eastern Maine that, if they were going to hold all the meetings in Portland, we would have an association of our own. I remember that at that time I had the honor of inviting the Association to Bangor; and the very fact that that annual session was allowed to be held in Bangor, and that since then it has been occasionally out of Portland, I believe is the only reason why we have not had an Eastern Maine Medical Association. And it seems to me that if we started in now to have a mid-winter session in Bangor, we would try just as hard as we could to make that bigger than the session in Portland, and that we would try to do that every time; and, having made that exertion and gotten them out there, there would be no particular incentive to make the society meeting in the summer bigger than ours. That it would so result is just as true as that the water runs or the grass grows, in my judgment.

DR. GILBERT: I would like to say one word in relation to that, Dr. Robinson. What you refer to was before the reorganization, when the thing was handled practically by the Secretary and officers. Now you have got a House of Delegates to determine where you will meet, and Portland cannot control the House of Delegates. That body will go where it sees fit to go. Now next year, if you want to have the annual meeting in Bangor, let us have it there, and have the mid-winter session in another part of the State. The House of Delegates represents the whole State and there is no one county in the State to my mind strong enough to control that body.

DR. SYLVESTER: I do not see why the first suggestion is not a good one; that this Association is willing to receive an invitation at any time that the Penobscot or Kennebec County Association wishes to have a special meeting with special attractions of State-wide interest,

such meeting to be under the auspices of the county where that meeting is held. Why would not that accomplish the object without moving the State machinery?

DR. DICKISON: Mr. President, I want to say just one word more. The Maine Society is represented by the gentlemen in the room here, and whether these gentlemen live in Bangor or in Portland is, it seems to me, absolutely a matter of indifference. I cannot see how the place of meeting would have any effect on the Association. It is not Bangor inviting us down there and endeavoring to make a better meeting than at Portland. It is this group of men who are going down to Bangor to have just as good a meeting as they can have. It is the same group of gentlemen who will meet in Portland next summer to have as good a meeting as they can have there. I cannot see why there should be any rivalry as to the place; and I will move you, Mr. President, that we hold a meeting of the Maine Medical Society in Bangor sometime in October.

A vote then being taken, Dr. Dickison's motion failed of passage.

Voted to adjourn.

GENERAL MEETING.

Morning Session,

JUNE 9, 1915.

The meeting was called to order by President Bartlett.

Rev. A. J. Torsleff of Bangor offered prayer.

THE PRESIDENT: We will listen to the address of welcome by Dr. J. W. Scannell of Lewiston.

PRESIDENT BARTLETT: Gentlemen, the very interesting paper by for this Maine Medical Association to be at this delightful spot at this most delightful season of the year. Any words of mine would be inadequate to express our appreciation. I think before the convention is over we will show by our attendance how much gratification our Society is getting from our entertainment on this beautiful hill.

On the program you will notice "Nervous Diseases and Their Relation to the Eye," by Dr. Walton. Dr. Walton is unable to be present, and that paper will have to be passed over.

The next on the program is "The Modern Physician's Long Arm in Preventive Medicine," by Rev. A. J. Torsleff of Bangor.

MR. TORSLEFF reads.

PRESIDENT BARTLETT: Gentlemen, among the pleasant features of our annual meeting is the reception of visiting delegates and exchange of greetings with our sister societies. We have with us this morning a delegate from the Massachusetts Society, and it gives me great pleasure to introduce to you Dr. Bangs of Lynn.

DR. BANGS: Mr. President, and Gentlemen of the Maine Medical Society: I certainly feel it is an honor, as well as a great pleasure, to meet with you on this occasion; and it gives me more pleasure, sir, to extend to you the greetings from the Massachusetts Medical Society, personally extended by the President through me. I bring to you the greetings of that Society of thirty-five hundred and eighty odd members, a society which, under the adverse conditions of the present time, has shown a net gain of nearly one hundred members in the past year. Their meeting coincides in time with yours, and today they are, like you, considering the great problems of medicine in relation to the community. Coming from the meeting of the Councilors of that Society yesterday, I would say to you that there was one point of legislation taken up there yesterday that to me seemed most important, and it is exactly in line with the problem which you are considering here this morning. I refer to the report of the Committee on Public Health. Embodied in that report was the matter of the necessity of trained officials to take charge of the health of the community, and also the social service work that must necessarily be done by trained nurses, as already advocated, in order to keep up with the march of progress along medical lines. We are coming more and more to realize the fact that the great work of the medical profession is not at the bedside, is not in treating those who are in immediate need of medical help, but in mapping out those great laws of life which shall be applied to prevent sickness and to keep the community up to the highest standard of health. Three million of our people are constantly sick; that is the regular percentage. Great progress has been made from the conditions of the past when sweeping epidemics went through not only cities, but States and nations, and demoralized all forms of industry and social life. Those things have been overcome by the progress of medical science and medical investigation, and today the man who boasts that he has never had the need of a physician's services, or has never been under the care of a physician, is the man who is

least posted as to the conditions under which he lives; because no man, or no woman, or no child, lives in this great land of ours, particularly in this eastern part of the country which we prize so highly, who is not constantly under the care of medical supervision as exercised through the health departments of the nation, the State, and the city.

Gentlemen, I do not wish to encroach upon your time this morning. I will repeat that it gives me the utmost pleasure to come back to my native State to represent the Massachusetts Medical Sociey at this meeting, and to meet so many of my friends, my associates in the school of life, and all of you who are identified with the medical profession. (Applause)

THE PRESIDENT: Dr. Bangs, we are very pleased to hear your greetings from your enthusiastic Massachusetts Society, and I hope you will take part in the discussions freely.

DR. BANGS: I thank you, sir, for the privilege.

PRESIDENT BARTLETT: The next paper on the program is Cancer of the Breast, by Dr. W. E. Gray of Milltown, New Brunswick.

DR. GRAY reads.

THE PRESIDENT: Gentlemen, I take this time to inquire if there are any of the visiting delegates from any of our sister societies in the room except the delegate who has been introduced, Dr. Bangs. New Hampshire and Connecticut have sent lists of delegates. If they are here, I wish they would announce themselves.

There being no response, the meeting was adjourned until two o'clock this afternoon.

Wednesday Afternoon,

JUNE 9, 1915.

The meeting was called to order by the President at 2.50 p. m.

THE PRESIDENT: The first part of the program this afternoon is, I hope, the only painful feature. The first thing on the program is the President's address, and I assure you before I begin that it will be short, and the pain will not last long for that reason.

(Vice-President Stanwood takes the Chair during the delivery of the President's address.)

VICE-PRESIDENT STANWOOD: Gentlemen, you have heard the address of the President. What is the pleasure of this organization?

DR. GORDON: Mr. Vice-President—I had the pleasure of nominating the President last year. I have known him very well for a good many years, and I thought the Society would be well satisfied with him.

I think the action of the President this morning has fully justified all that I hoped about him or all that I expected of him. I think that his address today is certainly a compliment to what has already been done this morning. I move that the thanks of the Association be extended to the President for his interesting and suggestive address; and I further move that a committee be appointed on the President's address. (Applause)

The motion being duly seconded and unanimously carried, the Vice-President appointed on that committee Dr. Gordon of Portland, Dr. Wadsworth of Skowhegan, and Dr. Campbell of Augusta.

(President Bartlett resumes the Chair.)

THE PRESIDENT: It gives me pleasure, gentlemen, to introduce to you Dr. A. H. Thwaites of Melbourne, Australia. He is Secretary of the Cancer Research Committee of Australia. (Applause)

DR. THWAITES: Mr. Chairman and Gentlemen—I thank you very much for your pleasant reception. I have come a long way, 15,000 miles, to visit you, and particularly for the purpose of learning all I can on the subject of cancer, about the research on the clinical side. I want to say, too, that everywhere I have been in this country, I have met with the utmost courtesy and kindness. I came upon you quite unexpectedly, and yet the way you have received me is in accord with what I have met with elsewhere in your country.

I understand that the matter for which you are meeting particularly just now is to hear Dr. Bainbridge read a paper on internal secretion. I have done a little work on the same subject, but very little, and chiefly on the research side. I do not think I can tell you anything that will justify me in wasting your time, except that I might tell you something that is not of value, but perhaps of interest. I have got three sections here, and, if you had a microscope, it might interest you to look at them. Probably no man in the room has seen them before, and probably no man will see them again. The first is a section of the most elementary type of thyroid gland in existence. I say that because it comes from the animal in which the thyroid is most completely developed, that is, an animal that we have in Australia, the platypus. The thyroid gland in the platypus is definitely associated with the thymus gland. The glandular tissue of the part which I would call thyroid is to my mind quite typical and definitely thyroid tissue. There is no abrupt line of demarcation between it and the thymus tissue. I have another section of another gland taken from the same animal, but lodged in among the gluteal muscles. What its nature is I do not know, beyond the fact that it is a ductless gland, and that the removal of it invariably results in the death of the animal in twenty-four hours. The

symptoms are extreme. The blood coagulates within the vessels, an immense outpouring of the plasma occurs into the tissues; a tremendous edema also takes place. Beyond that there is nothing visible on post mortem; but the animal apparently suffers extreme pain for the last four or five hours of its life.

The third slide that I have here is taken from another Australian animal, called the wombat, which is a specimen of the pancreas; and the most characteristic feature of the pancreas of this animal is the internal intercostal muscles. These are so large that they are almost visible to the naked eye here; they stand out in regular nodules. What the significance of that is I do not now. I have done a little work with the object of finding out, but I cannot say that I have been very successful so far; and, having left Australia for the time being, and taken up another branch of the work, I do not think it likely that I will find out. I thank you very much indeed for receiving me. (Applause)

THE PRESIDENT: Now, gentlemen, I will take the opportunity of introducing to you Dr. Bainbridge of New York.

DR. BAINBRIDGE: Mr. President, Ladies and Gentlemen—Your President is in error. I am an honorary member of the Lewiston Medical Society of the Androscoggin Medical Society; therefore not from New York, but from Lewiston. (Applause) So, as a fellow-member of the Maine Medical fraternity, I am glad to be back again, having gone afar into a far country, though I hope I have not used up my substance in riotous living. Yesterday I was known in Vermont as the grandson of a Vermont woman. Tomorrow at certain centers in connection with the work that Dr. Thwaites represents, I shall be known as his friend. Today I am glad to be known as a member of the Maine Medical fraternity. (Applause)

THE PRESIDENT: The next subject on the program was to have been an article by Dr. Bradbury of Norway, subject not announced; and as he is not present at this moment, we will go on to the next paper on the program, the treatment of trifacial neuralgia by hypodermic injections of alcohol,—Dr. W. D. Williamson of Portland.

THE PRESIDENT: I see that Dr. Bradbury is now in the hall. He is on the program, "Subject not announced." I do not know what he is going to talk about, but I have an idea. He has been over to Germany four or five months the past year, and I have an impression that he will tell you something about the Red Cross service in Germany.

DR. BRADBURY reads.

THE PRESIDENT: Dr. Nichols tells me that he has two cases to present, and Dr. Bainbridge wishes him to do so before the oration.

DR. NICHOLS reports two cases.

THE PRESIDENT: Next on the program is the annual oration by Dr. Bainbridge of New York.

DR. BAINBRIDGE delivers oration.

Adjourned until tomorrow morning.

Thursday Morning,

JUNE 10, 1915.

Meeting called to order by the President.

PRESIDENT BARTLETT: Gentlemen, we are ready to proceed with nominations for the office of President.

DR. ROBINSON: Mr. President, as the House of Delegates has voted that our next meeting be in Portland, it seems but natural that we should have a man from that city as President; and I would like to present to you the name of Dr. E. E. Holt. As you all know, Dr. Holt has been an active member for a great many years and has been always ready to take his part in any of the work of the Association; and that large branch of our Association that is engaged in the special work of the eye and the ear has asked that Dr. Holt, as their representative, be a candidate for President. I take very great pleasure in presenting to the meeting as a candidate for the next President the name of Dr. E. E. Holt of Portland.

DR. WILLIAMS: Mr. President, I have known Dr. Holt for the few years I have been in practice fairly well. During that time he has been energetic and active in work aside from his chosen special work. He has always been doing something, and he will do something as long as he continues to practice medicine. It is with great pleasure that I second the nomination.

DR. PETERS: Mr. President, one of the great qualifications for a President of an organization of this kind is the ability to organize. We all know that Dr. Holt possesses that in the very highest degree, and I believe that the affairs of this Association will prosper in his hands for the coming year as perhaps they have not before for some time. As a representative from Penobscot County, I take great pleasure in seconding his nomination.

DR. THAYER: Mr. President, Dr. Holt has wrought long and accomplished much, and I take very great pleasure in seconding his nomination.

DR. BENNETT: Mr. President, in behalf of the Washington County Medical Society, it affords me a great deal of pleasure to second the nomination of Dr. Holt.

DR. GORDON: Mr. President, I have known Dr. Holt ever since he began practice, and have worked with him. He has accomplished more than any one man whom I know in the State of Maine. He has brought into existence, and continued to help make it prosper, the first and practically the only institution devoted especially to the work of

the eye and ear. He has made it a great success. His ability to organize, as has been intimated, is beyond question —the most efficient of any man I know of in the profession; and there are a good many who are very efficient. He has quietly done his work, and has made a great many contributions. I take great pleasure, in behalf of the members of the Association in Cumberland County, in seconding the nomination of Dr. Holt. Dr. Holt may not be perhaps the best man to preside, but he will always get there. He knows his own limits, but you always find him where you ought to find him and where you expect to find him.

DR. STANWOOD: Mr. President, it is with great pleasure that I rise to second the nomination of one of my life-long friends. I have known Dr. Holt from a very young man, and have always found him as you find him today—Dr. Holt. I was in college with him, and I have always esteemed his friendship. Certainly in the line of his work no man has excelled him in the State; and it is with pleasure that I second the nomination of Dr. Holt in behalf of Oxford County.

DR. DONOVAN: Mr. President, I have known Dr. Holt from his earliest years in the profession. I think he is pre-eminently the man for the place. I take great pleasure in seconding his nomination.

DR. HILL: Mr. President, in rising also to second the nomination of Dr. Holt, I move that the nominations now close, and that the Secretary cast the ballot of the Association for Dr. E. E. Holt for President for the ensuing year.

Dr. Hill's motion, being duly seconded, was unanimously carried; and the Secretary thereupon cast the ballot of the Association for Dr. E. E. Holt as President for the ensuing year.

PRESIDENT BARTLETT: Gentlemen, you have elected Dr. E. E. Holt of Portland as your President for the coming year, and it gives me pleasure to introduce to you Dr. E. E. Holt of Portland. (Applause)

DR. HOLT: Mr. President and Members of the Maine Medical Association—I wish to thank you for the honor you have conferred upon me, and I assure you that I shall always do all I can for the Association. I remember that we had a gathering similar to this with the Maine Academy of Medicine when the late lamented Dr. Wedgewood was President, and we had a very enjoyable time which we shall always remember; I think it was some eighteen years ago. It was through Dr. Wedgewood that I began the use of Poland water as a remedy, and it was on that account that I am permitted to be here on this occasion. It is a personal testimonial to the efficacy of this water. I used it for a good many years, and I take great pleasure in

giving my testimony in its favor. Similar testimony has been voiced from many thousand persons, and it has made Poland Spring famous throughout the civilized world.

I often think, with the speaker we had last night, what a change there has been in the practice of medicine since I joined this Association forty-one years ago. Then if aseptic surgery was obtained at all, it was not in consequence of the method. Now methods are reduced to a science to produce aseptic surgery. I remember when I was house doctor at the Maine General Hospital we were looking for laudable pus. Now if the surgeon sees laudable pus he scowls and curses himself or his method. A great many changes have taken place; in fact during the time of my membership in this Association, forty-one years, there have occurred practically all the changes from the medieval practice of medicine to the present modern practice. We should all do our part to bring about further changes. The illuminating oration we had here yesterday is but an omen of what is to transpire in the future, which I am sure will be as great as anything that has taken place in the past forty years.

I thank you, gentlemen, for the honor you have conferred upon me, and I assure you I will do all I can not to disappoint you. (Applause)

THE PRESIDENT: The first paper this morning is "Intestinal Toxemia," by Dr. H. H. Roberts of Poland Spring.

DR. ROBERTS reads.

THE PRESIDENT: Next on the program is "Intestinal Stasis" by Dr. E. D. O'Neill of Biddeford.

DR. O'NEILL reads.

THE PRESIDENT: The next paper is "Chronic Gastric and Duodenal Ulcer," by Dr. William H. Bradford of Portland.

DR. BRADFORD reads.

Meeting adjourned until 2.30 p. m.

Thursday Afternoon,

JUNE 10th.

Meeting called to order by the President.

THE PRESIDENT: The first paper this afternoon is by Dr. Taylor of Boston. Gentlemen, I take pleasure in introducing to you Dr. Taylor.

DR. TAYLOR reads.

THE PRESIDENT: The next paper on the program will be by Dr. H. R. Farris of Oxford, the subject being "The Senile Heart."

DR. FARRIS reads.

THE PRESIDENT: Gentlemen, owing to the lateness of the hour, and so many being anxious to get home, at the request of Dr. Witherell, I will simply read the title of his paper, "Blood Pressure and Some of Its Clinical Values," and the paper will be published in the Journal.

THE PRESIDENT: I will now ask for the report of the Secretary of the House of Delegates.

THE PRESIDENT: The report of the Council is in order.

THE SECRETARY: The Council met immediately after the last meeting of the House of Delegates, and all the appropriations and changes made were approved by the Council.

THE PRESIDENT: This concludes the business of a very pleasant session, and I declare the meeting adjourned.

Adjourned.

Culture, not necessarily all German.

Our contemporary, Dr. Victor C. Vaughan, President of the American Medical Association, has lately deplored in the New York World the loss to the world since German laboratories have been exchanged for battlefields whence few will return. The greatest scientific discoveries of the world have been made in German laboratories. The British Medical Journal takes issue with Dr. Vaughan and reminds him that vaccination against small pox, anaesthesia for prevention of pain, antisepsis of cleanliness in surgery were not discovered by the Germans. Furthermore, bacteriology and radium come from France. Honors seem to be about even, when we compare these five wonders of the medical world with any other five from Germany.

JOURNAL OF MAINE MEDICAL ASSOCIATION

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Editorial Comment.

Mercurial Inhalations in the Treatment of Syphilis.

Dr. Frankenstein in the Deutsche Medicinische Wochenschrift describes a new inhalation mercurial apparatus, consisting of an isolated oven capable of enduring a heat of 325 degrees, heated by a dynamo or by the electric current. Over the oven is a plate for the evaporation of mercurial tablets, and the vapor is forced out by compressed air in the form of an extremely attenuated vapor, and inhaled through a glass tube. The mercurial tablets employed are furnished in the form of an amalgam, or mercurial salts.

Another physician, Dr. Stuempfke reports several cases treated in this manner and was of the opinion that it relieved old scars and exfoliations of the skin as well as any other modes of administering mercurials. The vapor is exceedingly easy to inhale, is agreeable to the patients, and is a valuable sequence to more powerful treatment by salvarsan. Inunctions, hypodermatic injections, intravenous injections and mercurial sweats used to be the fashion, and now we have arrived at the vaporous inhalation-method which promises considerably as an addition to the surgeon's armamentarium in the treatment of this ever present affection.

"Whooping Cough and Vaccination."

A recent bulletin of the American Medical Association contains a public health brochure under the above title, urging commendation of the work of the New York Public Board of Health in the more extensive utilization of vaccines of different sorts in the prevention treat

ment and cure of whooping cough. Emphasis is laid on the unquestioned fact, that this affection, which occupies an unique position amongst the infectious diseases and kills more than ten thousand children a year in this country alone, needs more careful study in the way of preventive treatment than it has so far obtained. With this aim in view the paper in question urges "vaccination" as the best preventive, and insists that the people as a whole should be publicly taught its undeniable efficacy. The writer, however, whose name is not mentioned, forgets that to the average person "vaccination" means an operation to be performed as a preventive of small pox, and that this having been done successfully on most children in infancy or youth, he cannot understand why it should be done again as a preventive against whooping cough. The use of the word "vaccination," it must be plainly said, as a preventive or cure of whooping cough has no meaning to the average individual, and no campaign to obtain successful use of vaccines in whooping cough epidemics will obtain success until a more distinctive word than "vaccination" is invented. Some catch words, some more precise definition of the use of vaccines in whooping cough such as vaccines in whooping cough, or the vaccine prevention of whooping cough, or the vaccine cure of whooping cough will have to be discovered by some bright man, before the new suggestion of the efficacy of vaccines brings forth fruit in the prevention and reduction of mortality, and cure of this distressing affection.

Some such title will have to be invented and spread widely amongst the people before physicians can expect to gain a mere foothold, or to make advances in the prevention, and cure of whooping cough. When discovered, then, "vaccination for whooping cough" will have to go. With such a hint as this, we leave the topic to our readers for consideration as a matter of improving the public health.

J. A. S.

Protection of War Surgeons

A Swiss Journal, "The New Free Press," mentions the very large proportion of army surgeons killed or wounded in the present war, and suggests that it must be due to the shape and color of their uniforms so much resembling those of staff officers. And in commenting on this assertion which shows that officers owing to their uniforms are more carefully shot off by their opponents than ordinary soldiers, "The Geneva Journal" suggests, that all army surgeons in actual conflict should wear a uniform entirely white, with a Red Cross conspicuously visible front and back. Henri Dunant, the originator of the Geneva Convention, mentions in his book, "A Souvenir of Solferino" that all the soldiers on that battlefield recognized him by his white suit, and he soon became known as the "Man who dresses in white." "Don't shoot at him; he helps the wounded."

The Lice Plague in Modern Armies.

To give the neutral readers of the "Journal" some idea of the plague of lice in the European armies of today, let it be mentioned that in a recent number of a prominent European Medical Journal a careful reader counted no less than forty-three distinct, guaranteed, and highly recommended cures for the pest. In spite of them all, however, the pest continues to infest the soldiers of every army. Naphthalin, it may be said in passing, has for some time been highly thought of, in this state of affairs, but owing to many recent observations of injurious effects upon the eyes, and the eyesight, especially when rubbed into the eyebrows or on the eyelids: it has ceased to be recommended. In this connection it is interesting to note, that animal experiments with naphthalin given internally, have shown the production of a cataractous condition of the crystalline lens.

County News and Notes.

CUMBERLAND.

PORLTAND MEDICAL CLUB.

The Portland Medical Club began its regular monthly meetings for the winter on September 2, at the Columbia Hotel, there being but seventeen members present. In the absence of the president, Vice-president Gilbert presided. There were no reports of cases, and no business to transact. The paper of the evening was by Dr. Lucinda B. Hatch, and she took for her subject, "Hypodermic Medication." Starting with the invention of the hypodermic syringe and tablet, the author traced its evolution to the present refinement of the ampule. Various methods of administration were explained, and advantages given. The use of Ergot in obstetrics was gone into, and the use of iron for secondary anemias was thoroughly discussed with the aid of interesting cases from the author's practice. There was a free discussion of the method and particularly of the form of iron which had proven best in the hands of the various men who had used them.

H. J. EVERETT,
Secretary Pro-tempore.

PISCATAQUIS.

The regular quarterly meeting of the Piscataquis County Medical Society was held at Moosehead Lake on Thursday, August 26, 1915, at 10.30 a. m.

Many members with their ladies took the ride to Greenville by automobile, the others going by train. A steamer had been chartered for the day and while sailing up the lake the program of the meeting was held.

Dr. George N. Gay of Boston and Bar Harbor, Ex-President of the Massachusetts Medical Association, was with the party and gave a very valuable and instructive paper on "Doctors' Mistakes." Dr. Gay dealt largely with surgery and particularly with fractures. He gave the members many points to be remembered and held their interest from beginning to end of his paper. The boat had by this time reached "Capin's," where a delicious buffet lunch was served aboard the boat and a social time enjoyed.

Members who had come to Greenville had to take the regular boat back from there in order to catch the train, while the rest went on for a sail around the lake, returning to Greenville later in the evening.

There were twenty-one on the boat and all were very much pleased with their day's outing.

C. C. HALL, M. D.,
County Editor.

Personal News and Notes.

Dr. M. O. Brown of Dover is touring Aroostook County.

Dr. E. T. Flint and wife of Foxcroft have just returned from a trip down the Allegash.

Dr. Benjamin Foster, of Portland, who has recently undergone an operation, is making a good recovery, and will soon resume his practice.

New and Non-Official Remedies.

During August the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Armour & Co.:

Pineal Gland Desiccated.

Hoffman-La Roche Chemical Works:

Scopolamine Stable Roche, Larosan, Roche, Pantopon (Pantopium hydrochloride).

A. Klipstein & Co.:

Coagulen, Ciba.

Abstracts from Current Literature.

The Threshold of Disease.

The longer you live the more you see that people are nothing but sheep, one following the leader. The human mind steadily repeats itself except in the case of genius. In a late review before this Club I noted an excellent paper on the "Borderland of Disease," and now I find another on "The Threshold of Disease," by Dr. Alexander Lindsay of Belfast. In this he considers cases of endocarditis, cancer of the stomach, disseminated sclerosis and tuberculosis, to illustrate his meaning. The thought that runs through the paper is: that failure to make an early diagnosis is not due either to the carelessness or thoughtlessness of patient or physician, but simply to the inherent difficulties in each case.

In considering endocarditis, the heart must be strongly suspected in every case of rheumatism, acute or subacute, such suspicion being particularly worth investigating in children. How far the polygraph and the electro cardiograph will go in such cases is difficult to determine, and we must rely on slight muffling of the first sound, slight arrhythmia. Early diagnosis of endocarditis cannot be too much emphasized.

Cancer of the stomach. The diagnosis of this condition is fraught with many difficulties. Loss of appetite for meat and loss of weight, suggest the trouble, whilst the presence of free hydrochloric acid is evidence against a cancer. Vomiting is a doubtful symptom, haematemesis is not an early symptom. Prognosis must always be poor, yet it is possible that exploratory operation and extirpation of the entire organ will be the ultimate successful treatment.

Disseminated sclerosis is much to be studied by the eye symptoms, such as diplopia and amaurosis which cannot be relieved by proper lenses. The pupil often fails to remain contracted to the stimulus of light. Giddiness and forms of hysterical psychoses may appear. Paresthesia of the legs and loss of control of bladder are later symptoms. Early diagnosis is of great value in the early removal of nervous strain. Covering of an eye, relieving the symptoms, aids in diagnosis. After dilating on seven well known tokens of tuberculosis to aid in difficult cases Lindsay goes into detail concerning the Arneth blood test, which is a study of the nuclei of the blood. As I understand it, these are present in certain groups in the blood corpuscles, some containing 1, some 2 and so on. In good health such groups are present in 5% for one, 35% for 2, 41% for three, 17% for four and 2% for more. In incipient tuberculosis, the first change occurs in group one, which increases to 15%, group 2 to 46%, whilst all the

rest fall off in percentage. As the tuberculosis advances the more the group of one nucleated cell increases from the original healthy, up to as high as 52%. Arneth's method is worth studying, yet it is not easy to believe that the changes in the leucocytes are specific of tuberculosis as against all other infections.

Radioscopy in early tuberculosis is difficult yet some observers claim fine mottlings in the lungs. Tuberculin tests have proved disappointing for they do not enable us to distinguish between infection and actual disease. Opsonic methods have proved doubtful.

Let me say personally, that I believe we should make more of the laryngoscope in the diagnosis of early tuberculosis. It has happened to me twice of late years to diagnosticate in this way incipient tuberculosis which had long been treated as chronic pharyngitis and of course in vain, and then to have my diagnosis verified by physical findings elsewhere.

J. A. SPALDING.

(Journal A. M. A., May 1, 1915.)

Action of Opium Alkaloids on the Coronary Circulation.

By D. I. Macht, Baltimore.

Although opium and its derivatives are conceded to be valuable in treating cardiac and vascular conditions, the general impression seems to be that they do not act on the heart and vessels themselves, but indirectly by quieting the nervous system. Macht states that this theory is chiefly empirical for no systematic study has been made by means of more recent and exact pharmacologic methods concerning the effect of these drugs on the coronary circulation.

Opium contains a large number of alkaloids, at least a half-dozen of which are present in sufficient quantities to produce definite effects. The chief alkaloids in point of quality and probably also of pharmacologic importance are morphin, narcotin, papovein, codein, narcein and thebain.

Three methods were employed in the writer's experiments, namely, by perfusion of excised hearts, by the effect on excised arterial rings or strips, and by observing the result in the living animal, with opened chest and the heart *in situ*.

Omitting the technique of the experiments, let us consider the results, which were practically the same for the three methods. Morphin, the principal opium alkaloid, produced a mild relaxation or dilatation of the coronary artery and an increase in the coronary outflow; narcotin produced the same effect in a greater degree, and papovein gave certainly the most marked action of all. On the other hand, the vaso-dilator effect of codein was very slight, and that of narcein and thebain practically none at all. Morphine, combined with

either narcotin or papavein, caused no dilatation, but morphine and codeine together produced vaso-dilatation as also did narcotin combined with papavein. A combination of the total opium alkaloids was found to exert only a slight action on the coronary.

Narcotin is generally regarded as being practically inert, but the author concluded that it is toxic to the heart and respiration. As regards papavein, J. Pal of Vienna, who has worked a great deal with this alkaloid, has recommended it in angina pectoris. It is not a heart depressant.

In closing, Macht has written something concerning caffein. Caffein, used alone, dilated the coronary artery. This action was not antagonized when the drug was combined with the above mentioned opium alkaloids. The caffein stimulated the heart and probably counteracted any cardiac depression that might otherwise have occurred.

H. V. BICKMORE.

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*THE PHYSICIAN'S LONG ARM IN PREVENTIVE MEDICINE.

BY REV. A. J. TORSLEFF, BANGOR, ME.

"Curative Medicine" is still, and for a long time probably will be, in vogue.

People live in ignorance, or in wilful disregard of the simple conditions of health. Then when nature rebels and exacts the legitimate penalty for infraction of her laws, the doctor is called in to give all possible aid toward restoration of health. I do not know, but I assume that the majority of physicians take conditions *about* as they find them, make only absolutely necessary inquiry into causes, and do their best to restore conditions of health as soon as possible. Of course, you see the *joke* in this practice: the doctor is paid to use his knowledge and experience to shut off his income as soon as possible in each particular case.

The regular practitioner is no doubt likewise conscious of two elements which enter into practically every physical diagnosis: (a) few patients tell their whole story, even with fairly close catechising; and (b) the doctor's *time* will not permit of a *complete* inquiry into possible or contributing causes. But the specialist is expected and is paid to give the *extra* time for *extra* careful and close examination. Even then the patient may "forget" some factor or symptom, a revealment of which may furnish to either the *key* to the whole difficulty.

1. But the old ideas of medical practice are changing. They used to be individual, and curative only. Now, medical practice i-

*Read before the Maine Medical Association, June 9, 1915, at Poland Springs, Maine.

slowly but surely assuming a social phase and the idea of *preventive* medicine is forging to the front. For this transition both physicians themselves and conditions are responsible. But since evolution in ideas seems to be as slow as evolution in other realms of life, it will probably be many years before we shall widely adopt the practice of the "heathen chinee," and *pay our doctors only while we keep well.*

2. Meanwhile, few physicians have the necessary time to give special instruction to patients as to why they are sick, or to inform them as to methods of preventing either a relapse or the spreading of infectious disease to others in the house or the neighborhood. No doubt such instruction would be resented or ignored by most people from any but an old family physician. As of old, the doctor must prescribe for the patient and then leave him to the care of the family or some kindly disposed neighbor whose training is that of crude experience only. But even this practice in time developed the so-called "experienced nurse."

Untutored, though she was, this nurse revealed the real need, and was the pioneer of her *trained* sister whom we have today in the service of medicine and of humanity. For the latter nurse, various hospitals established a course of training to fit her for *work in the homes*. In serious home-cases, the doctors called in this nurse whose training made few specific instructions necessary. This trained nurse is the doctor's representative, and her authority is tacitly acknowledged. She gives instruction, as well as care, which the doctor cannot give in the nature of the case. Under her close observation, and in her presence and practice, the process of education in care-taking goes on with the pupils little realizing they are being instructed; but later they recall "the nurse said that;" or, "the nurse did this." Thus, is this trained helper, at the bedside in the home, the attending physician's right hand on the family pulse.

Because the expense for the care given by such nurse made her an unattainable luxury, though as much a necessity, for the poor, this innovation was but the precursor of larger, more advanced ideas and methods with the consequent broadening of the field for the nurse.

3. Of necessity, the next forward step was the "district nurse." She labored side by side with the charity worker, and often the work of each was the complement of the other.

The first system of district nursing was founded in Liverpool in 1859 by Wm. Rathbone. The idea was to provide nurses for the sick poor in their homes. Within four years, the entire city was divided into eighteen districts with at least one nurse in each district.

In America the system was first inaugurated in 1877 when the New York City Mission engaged a graduate of Bellevue to nurse the

poor in their homes. But, for some time the curative purpose only in medicine found expression in bed-side care by these nurses.

By 1900, the system had taken deep root in America, as in England, and has since made large growth. Dr. Osler estimates that "90% of the sick in the United States are home-cases." This may account largely for the development of the district nursing system. There is no doubt another large factor; many self-respecting people of small or moderate income may have the efficient service of this trained nurse at a nominal expense who could not afford the private nurse at \$15 to \$25 per week, and who would refuse to accept such assistance as a gratuity.

4. By a natural process of evolution, both the old fashioned and the district nurse have been transmuted into the Public Health Nurse. She was *first* a tuberculosis nurse in hospital social service, then in turn a public school nurse, an infant welfare nurse, an industrial welfare nurse. She is also a sanitary inspector, a truant officer, a visiting dietitian, even a mid-wife. Her work is both "actual" and "educational," a work for cure, but especially for prevention. She used to be considered a form of charity; but now we see she is no more a charity than is the public school. Both are necessities, for the good of the community.

Whether the evolution in medical practice from curative to preventive medicine antedated the evolution from the individualistic to the socialistic idea in nursing, or vice versa; or, whether they developed this change through interaction is not of large moment in the present consideration of our topic. Evolution is working a revolution in both lines of service to humanity.

The doctor used to, and still does, visit the home, to prescribe for the patient, repeating the visits according to need. For the better care of the sick, first private, then public hospitals were established. Neither form of care proved adequate — the physician could not constantly watch and instruct the home-case; the hospital lost track of the case discharged, generally before complete recovery. Neither does nor can fully serve today without the public health nurse.

Dr. Jas. Alexander Miller, Director of Bellevue Hospital Tuberculosis Clinic, N. Y., says — "In the past, our profession has commanded the devotion, enthusiasm, and self-sacrifice of its members, but its viewpoint has been more or less self-centered." "No experience is more productive of future hopefulness to the physician than that which may be gained by membership in local agencies for the relief of the poor and the study of their social and economic environment. Opportunities for such experience are not lacking in any community, but unfortunately few physicians avail themselves of them."

"The health of each individual can no longer be considered simply a matter of personal concern, but quite as much one of public interest and responsibility."

"This situation," continues Dr. Miller, "whether we like it or not, we physicians must face, and if we are wise we will mold and direct these tendencies into sound and rational channels, rather than waste our efforts and discredit our profession by fruitless combat with the inevitable." "To some of us this change opens wide the door of opportunity for nobler and more efficient service, and in no branch of medicine is this so evident as in the anti-tuberculosis movement." "The progress of the present and the hope of the future is in the prevention of disease. In this, more than in any other sphere, physicians need the constant help and co-operation of the nurse, and she must be the trained social service nurse. Together physicians and nurses must press forward, confident of ultimate success, to study and to correct the underlying causes of preventable disease. *This work might truly be characterized as a mission of friendship,* for it is often true in medical work among the poor that the best the doctor can prescribe for a patient is a *true friend*, and it is just this that the true nurse will become."

General Booth, of Salvation Army fame, out of his long experience, and intimate knowledge of conditions which superinduce disease said,—"We cannot solve the problem of disease among or save the poor until we can and do change their social conditions." You and I, friends, see the opportunities of the physician for *this* are comparatively few, while those of the public health nurse are almost innumerable. Let me take an illustration from the history of the New York City public schools. In 1903, 57,000 children were excluded by the school physicians: 20% of these had trachoma. At the end of the year, records showed but 6% of the doctor's instructions had been heeded by the patients. A school nurse was engaged, and four years later records show but 4,000 children excluded for communicable disease, but a little over 2% of trachoma, and 84% of the doctor's instructions effective.

I believe the secret or "key" to the development of the work of the public health nurse lies in the fact that she has the privilege of free entrance to the homes, and hers is a *friendly* visit.

Dr. Cabot says "She must be chiefly an educator, a nurturer, stimulator, developer and director of human souls, particularly in that group of persons whose character or temperament has brought them into some sort of trouble." I do not know that I add anything to Dr. Cabot's category when I say—the efficient public health nurse must be an intelligent interpreter of conditions, laws and possibilities for the patient, and an enthusiast with the *social* view point in her work.

Other problems than sickness meet her at every threshold — delinquency in children and adults, ignorance, lack of employment, poverty, bad sanitation, all enlisting her *friendly* offices, so she cannot be other than a *social* worker if she would.

5. This is especially true of the T. B. nurse, who was not only the forerunner of the modern public health nurse, but who is almost wholly responsible for her development. The social character of the nursing problem did not seem to be realized till the T. B. nurse entered the field. Since her patient may be a center of infection she cannot separate him from the family, nor ignore his relationship to the community. In her care for the patient and instruction of the family, for *prevention* as well as cure, she is *the social factor* in the public health campaign.

As a result of her work the war against T. B. has been intensified and greatly developed — we have new laws, new ordinances, appropriations; departments and laboratories established; hospitals, sanatoria and other institutions built and maintained. But to make these even measurably effective we depend on the nurse to complete her work and translate them into simplest terms and carry their message into the homes of the common people.

I understand the first visiting T. B. nurse in America was assigned in 1903 by the Johns-Hopkins Hospital at Baltimore to "follow-up" cases in their Out-Patient Department. She investigated home conditions, helped improve sleeping-quarters, instructed in methods of care and prevention. From that beginning we now have over 4,000 T. B. nurses in the U. S., and more than 400 special T. B. clinics. Baltimore has 17 nurses; N. Y. City (1910), 158; Boston, 25; Chicago, 61; while Pennsylvania appropriates \$400,000 annually in support of the county dispensaries and the 115 State nurses.

As to Maine, up to 1910, she seems only to have marked time so far as the T. B. visiting nurse is concerned. The educational and organizing work of the Maine Anti-Tuberculosis Association records at this date (1915) 10 local, district and county nurses, covering 101 towns. The Association has also one State nurse who investigates new fields, and will organize several as soon as properly trained nurses can be secured.

Progressive as Maine physicians are in other matters of their profession I find many who do not seem to take kindly to the T. B. nurse. I presume they fail to appreciate her necessity because they really do not understand her functions. A pertinent illustration is found in the history of two contiguous towns in Maine. When organization was proposed in the Spring of 1912, local doctors thought existing cases of T. B. well known and well cared for. In the larger

town (6,600 pop.) 5 High school girls died of T. B. in 6 months. Then these towns organized and engaged a T. B. nurse. From Jan. 1, 1913 to Sept. 1, this nurse found, and brought under doctor's care 86 cases in the larger town; from Feb. 1 to Sept. 1, 47 cases in the smaller town. About 70% were under 15, in the first or second stages; 10% to 12% beyond help—only two or three of the latter known to the doctors or under a physician's care. Dec. 31st, the doctors reported *after examination*—"No known case of T. B. in the public schools."

The chief work of the T. B. nurse is *not* bed-side care—that is incidental, at least after one or two visits. This nurse is a discoverer, an investigator and educator. She does work the doctor cannot do. For instance—she visits schools, studies the pupils, singles out T. B. suspects, and sub-normals. By quiet inquiry of the teacher she learns of the school habits and the home address of each "suspect." Later she visits these homes. Her hospital training enables her to give *necessary* bedside care and to instruct others in such care. Her social service training makes her investigate underlying conditions for contributing causes. She looks into sanitation, modes of life, kinds and quality of foods used, and learns as much as possible of the family health-history. She urges the patient or suspect to the *doctor of his choice* for proper examination. Whether to the private physician, or to the dispensary clinic in absence of choice, the nurse submits her social diagnosis, which enables the doctor to make a more intelligent physical diagnosis.

Because this trained socio-medical or medico-social investigator discovers many cases in the early stages she gets them to a physician at a time when he can be of most service.

You readily see now the absurdity of the criticism that "the T. B. nurse interferes with the doctor's practice." Without this nurse many cases would develop to the advanced stage, and reach the doctor too late for help. Thus is *this* public health nurse, this specialist in the anti-tuberculosis campaign,

"The Physician's Long Arm in Preventive Medicine."

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Ella P. Crandall.

Boston, Mass.

Vol. 5, No. 3.

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"THE TUBERCULOSIS NURSE—Her Function and Qualifications." Ellen N. LaMotte, R. N.
G. P. Putnam's Sons, N. Y. City, \$1.50.

(This is probably the most thorough-going work on this subject—Truly "a hand-book.")

DISCUSSION.

PRESIDENT BARTLETT: Gentlemen, the very interesting paper by Mr. Torsleff is now open for general discussion.

DR. PETERS: Mr. President, this paper is interesting to me because I have been interested in the tuberculosis work for several years. The important thing, it seems to me, is just what its application is in the State of Maine. There are certain things about this nursing business that are of use to us. The larger cities in this State might perfectly well support district nurses. There are perhaps six or seven cities that might have one or two such nurses. Portland, for instance, ought to have tuberculosis nurses, two district nurses and two school nurses. A city of the size of Bangor ought to have a tuberculosis nurse, a district nurse, and at least one, and perhaps two, school nurses. I believe it would be a proper thing for any and every county in this State to have a tuberculosis nurse to work under the direction of the physicians, or the county society, or some other society, among all the people of the county, and for groups of small towns and cities to band themselves together and employ such a nurse.

The other point that I wish to make, and I think the most important one is this: that all this work should be kept under the control of the medical profession. It is a mistake to allow outside organizations to go ahead and do this work without our co-operation. That has been done to some extent in the past; that was done in the tuberculosis work in the beginning. It is not done so any more. Since I have been an officer of the State Association it has been the aim of this organization to first co-operate with the medical profession. I think you will find now that if Mr. Torsleff, or any of his helpers, come into your section, the first thing they do is to hunt up the doctors and see if they cannot get them to direct the work, requesting that they be allowed to work absolutely under the charge of the doctors. If this is run by a society,

the doctors ought to be the officers of the society. If it is in charge of the city or the town, the medical profession should be on the Board of Health, and they should see to it, as an organization, that the members of the community best fitted to serve on the Board of Health are picked out and put on. They should see to it that a proper man is put on, and that he represents the profession in his community. If he is not the right kind of a man, he should be discharged and a proper man employed. In other words, this whole thing ought to be under the direction of our profession, and not outside persons who have become interested in the work because we have not quite done our duty. (Applause)

DR. WELCH: Mr. President and Members of the Association: As preventive medicine is that branch of medical science that aims to prevent or ward off disease by properly directed hygiene, personal and public, we can all subscribe to Rev. Mr. Torsleff's designation and simile.

The nurse is, next to the patient, unquestionably the main factor in this field. A great deal must depend on personality. In addition to her skill, training, and experience, there must be added unlimited patience, perseverance and tactfulness. "Many are called, but few are chosen" may well be applied here. You all realize the successes attending pre-natal work, the care of the mother and child, as emphasized by the milk clinics, the effectiveness in medical inspection of school and the school nurse, the social service worker, the hospital district nurses, the progress of industrial hygiene, the cancer problem, sex hygiene, and the warfare against tuberculosis, including the following up of cases and attention to the so-called pre-tubercular child, together with the work done by the State and local boards of health. In all of these the nurse should rightfully hold a place of broader usefulness. As the greater need of standardization in these lines is more generally recognized, the nurse's position will be assured. The Journal of the Out Door Life brings this out in another way when it advocates the standardization of the treatment of tuberculosis.

It is suggested that by collaboration of educators and organization workers, as well as sanatorium, clinical and social workers, a definite creed of essential facts in the treatment of tuberculosis should be agreed upon and thus presented in an educational campaign. In this way there would be less confusion of ideas. Many other departments of public health work besides the fight against tuberculosis need standardization. The New York Board of Health is right in saying that you can have as much public health as you are willing to pay for. As we all know, these things cost money. There is little to be accomplished if the nursing force is not able to find places for their patients. If there is no place to segregate the advanced tuberculosis cases, and not enough places for the incipient and moderately advanced that are indigent, the nurse or social worker will fail even in well united efforts. We must continue to educate the public, and encourage the State and cities and counties to do more. Sanatoria that are established to care for those who are in the incipient stage should not be compelled to take advanced cases. Already we have made a beginning along these lines in this State, but there is a great deal more that will have to be done. If this is the age of preventive medicine, it is truly in its infancy, for there is very little of preventive medicine the average general practitioner sees or has time to investigate. He is too busy attending the wounded in the thick of the fight. These things must be done along systematized and standardized lines in which due credit has been given to the nurse for her work. However, the practitioner of medicine must be keen and eager to join in the work, doing

what he can by making earlier diagnosis, following up his cases, by the examination of other members of the family, and by giving aid and encouragement as the occasion presents itself.

THE PRESIDENT: Is there anything further, gentlemen? It is a very interesting paper, and I hope you will discuss it freely. If there is nothing further to be said, the paper returns to the reader for his closing discussion.

MR. TORSLEFF: I have just another word. My time was limited on the paper, and I will take a part of the five minutes additional to say one or two additional words on the part of the public health nurse particularly. I do not know how many of the gentlemen present realize that in the State of Maine in the years 1910-11 and 1911-12, those two school years, the State expended \$158,057.46 in educating children who would not live beyond the age of twenty-five. You know as well as I that 75 per cent of the infections come before the child reaches the age of fifteen; and, if there is any time that we are going to do anything at all in the fight against this disease of tuberculosis, the most insidious we know, we have got to do it at the time when it will be most successful in the child life. That is where the T. B. nurse is especially effective, among the children in the homes and in the schools, where she has done her work from the first. Miss Ella Crandall, the Secretary of the National Nurses' Association, is authority for the statement that in the city of New York doctors will not undertake a physical examination of a case for tuberculosis until they have first had the nurse's social diagnosis of the same case. The nurse, as both Dr. Peters and Dr. Welch have said, gets into the home in a way in which the doctor cannot do.

Another thing which Dr. Alexander Miller brings out, and which I did not mention in the paper, is the fact that the family physician is in too close sympathetic touch with the members of the family to always recognize the beginning of this disease, at least so quickly as the specialist, or the outsider, the doctor who does not know the family history. The secret of success of the specialist is his utter detachment from the patient; while the failure of the family physician to discover a case in its incipiency is the fact that he is so closely associated with the family that he takes a great deal for granted. If we are going to do anything against this disease at all, we must discover it in its incipiency, and that means that the nurse must be the one to do it; a doctor cannot do it. If you were to undertake to go into any home and say, "I think here is a case of tuberculosis, I would like to make an examination and find out whether such is the fact," that family would be likely to tell you to go your way, that you were only after another fee. But the visiting nurse can go into that home and quietly ingratiate herself into the good feelings of the family, and make her inquiry in a way that will be a real help; and then when the time comes, if she really discovers or suspects that there is a case there, she indicates that the individual ought to go, and they will quite likely go to the doctor at a time when the doctor can be of real service. As secretary, the first thing I have done when I have gone into a community to locate has been to go to the doctors and say: "Will you support me?" They will say, "What is your purpose?" My reply is that I want to try to educate the community and try to bring the community up to the position where they will engage, or unite with some other community to engage, a T. B. nurse. Sometimes I have had the support of the doctors. More often they have said, "The nurse is an interferer with our practice; we cannot control her; we cannot have much to do with her; she works independently of us." Now the real T. B. nurse, the

nurse who has had social training, such as we are undertaking to put into the field, first of all goes to the doctors and tries to interest them; and then, with the doctors, she undertakes to work in the community for the welfare of the community. I think we will all recognize the fact that the nurse is a factor in the public health campaign who has come to stay, and that she is a potent factor in the work of preventive medicine.

*CANCER OF THE BREAST.

W. E. GRAY, M. D., C. M., MILLTOWN, N. B.

The breast is one of the most frequent sites of cancer, 40% of all cases being found in this region. It is most commonly seen during the fifth decade, and is said by most authorities to be rare under 35 years, but recent statistics would seem to show, either that it is becoming more common in young women than was formerly thought, or that more presumably benign tumours are being removed, which upon microscopic examination are found to be cancerous. Rodman says that 20% of all cases occur under 40, and quotes one case in a girl of 17. Judd and Sistrunk, reporting 609 cases, found 160—26.3% under forty, and of these 13 were under thirty. Less than 1% of all cases occur in men.

For a proper conception of the mode of dissemination of cancer of the breast, a thorough knowledge of its lymphatic supply is essential. It is through the lymphatics, for the most part, that the disease extends, although the blood stream undoubtedly plays some part in the formation of metastases in bones far removed from the area of infection. They may be divided into three groups—

- (1) Cutaneous, consisting of those over the periphery, and those over the central part of the gland.
- (2) Glandular, subdivided into principal and accessory channels.
- (3) The fascial lymphatic plexus of Handley.

The peripheral cutaneous group communicates with the vessels of the opposite breast, a fact which is important when we consider involvement of the breast opposite to the one originally diseased. There is also a distinct set of vessels, which drains the upper part of the breast, and passes over the clavicle to empty directly into the supraclavicular glands. The central set forms an intricate network

*Read before Maine Medical Association, June 9, 1915, Poland Springs, Me.

around the areola and nipple, which sends branches inwards to unite with others from the substance of the gland and form the subareolar plexus.

The principal lymphatic channel originates in the perilobular sacs, being formed by the confluence of minute channels which pass between the ducts, toward the nipple, and terminate in the subareolar plexus. From this plexus two trunks are given off, an internal and an external, both of which empty into a few glands on the internal wall of the axilla at its upper portion. In addition there are the accessory channels emptying into the glands of the mammary chain, into the subclavian, and into the axillary glands and a fourth accessory channel at the inferior border of the gland, which traverses the pectoralis major muscle, and passes mainly through the fourth intercostal space into the thorax. A few small branches sometimes follow the intercostal vessels to the spine.

The fascial lymphatic plexus of Handley is the most important set of lymphatics we have to do with. It occupies the loose retromammary tissue, and the deep fascia which covers the muscles under the breast. When it becomes involved the disease permeates it by a process of continuous growth which is centrifugal, and practically equal in all directions. The cancer cells advance as a microscopic growing edge along the lymph channels. An important point to note is that this plexus may become infected before the tumour has become adherent to the pectoral fascia, and is probably the plane along which the disease spreads to the opposite axilla, when this occurs. Later on permeation spreads into the smaller muscular and cutaneous tributaries, which drain vertically into the plexus, and so infects the adjoining layers to a depth which reaches its maximum opposite the centre of the primary growth. The permeation also extends along the numerous finer anastomoses, which piercing the parieties, connect the lymphatic plexus of the deep fascia with the subendothelial lymphatic plexus of the pleura and peritoneum, and with the mediastinal and portal glands. Clinically, the microscopic growing edge is not recognizable, and for this reason Handley advises a very free removal of deep fascia, even when the case is seen early, and there are no attachments of the growth to the underlying muscles.

The question of lymphatic involvement is a great one, and has a very large bearing on the prognosis. The older the patient, the slower is the development of the process. This is due to the fact that the lymphatic system reaches its height of activity in adolescence and early adult life. In advancing life the lymphatics undergo a progressive atrophy. This accounts for the comparatively slow growth and benign course of cancer in the latter decades of life, as contrasted with the riotous growth of the malignant process in the young.

The etiology of breast cancer is as obscure as is that of cancer in general. I shall discuss only two phases of it.

(1) Trauma. There are two schools with exactly opposite views, as to just how large a part trauma plays in the causation of cancer of the breast. One holds that a single definite trauma is sufficient to cause cancer; the other contends that while cancer may follow a single severe injury to the breast, there is no evidence that the injury does other than to call attention for the first time to a pre-existing tumour, or to hasten the growth of early dormant malignancy. Weight of opinion would seem to favour the latter view.

(2) The so-called "precancerous" conditions. Every form of benign tumour of the breast, with epithelial tissue as a part of its make-up, is potentially malignant. Nobody has ever seen the actual change from a benign into a malignant condition, but that such a change does occur has been proven almost beyond a reasonable doubt. Especially is this true of the condition designated by Warren as "abnormal involution," or which has been more accurately and descriptively described by Kronig as "chronic cystic mastitis." This lesion makes up 30% of all breast tumours, and is seen in at least 75% of all malignant conditions.

Normally the gland unit—the acinus—is made up of several cells sharply demarcated from the stroma, and arranged around a space or lumen which may be potential or patent. In the active organ these secreting cells apparently rest upon a flat row of cells which appear to be a part of the stroma, and which may be called a basement membrane. In chronic cystic mastitis the pathological process consists in changes in the gland units, and in the connective tissue stroma. According to MacCarty we find one of two changes, and it is with the second that we are most concerned.

(a) The cells may be small and contain a small amount of protoplasm. There may be a small lumen or none at all.

(b) Instead of the single row of cells spoken of above, there are two rows in each unit; the inner row containing oval, darkly staining nuclei arranged radially around a distended lumen; and the cells of the outer row flat or round, the nuclei being small and round. The periacinar connective tissue may be rare or dense, and there may or may not be round cell infiltration. The inner row of cells is apparently pushed toward the centre by the outer row. The latter were first described by Borst and Wohlseeker. The former thought them to be definitely cancerous; the latter said he had seen them in benign tumours, particularly fibroadenoma, and cystadenoma. The fact of their being present in benign tumours does not prevent their being the cells from which cancer develops; neither does it prohibit their

being seen in stages of hyperplasia in all three forms of tumour mentioned, for it is a well known fact that they may all develop into cancer.

At any rate the change continues, the cells becoming heaped up in the lumen. When examined under high power they are seen to be irregular in shape, and show mitotic figures. In fact they show all the signs of being cancer cells, but the condition has not been called cancer, simply because the cells have not broken through the basement membrane. The cells themselves are identical with those seen when the basement membrane has been broken through, and the condition definitely recognized as carcinoma. How and why the cells of the outer row proliferate and pass through is not known. Nor is it known at just what stage in their development invasion takes place, but this much is proven—that the invasion is caused by the outer row of cells, and these upon examination are found to be identical with those seen later in the lymph spaces and metastases.

MacCarty's work on cystic disease is certainly convincing as regards its relation to cancer. Nothing like it has been done in the other so-called benign conditions, but the same thing undoubtedly holds true for them, that we find in cystic disease.

Page's disease, for long thought to be one of the causes of cancer, has now been shown to be a cancer of the ducts from the start, and it is the secretion from the involved ducts, escaping through the nipple, which causes the irritation of the skin.

No satisfactory classification for breast tumours has ever been adopted, and the same thing holds true for cancer in particular. Each writer has adopted a nomenclature to suit the particular angle from which he happened to be viewing the subject. All cancers arise alike from the epithelium, but are classified under the different names because of the arrangement of, and the varying relations of the connective tissue to the tumour cells. Here, as in every other form of cancer, all there is of cancer is the cell. The cells grow into tissues of different densities, and in these surroundings vary much in shape and size. In dense connective tissue they give us the form we call "scirrhoue cancer;" when there are several rows of cells with a moderate amount of connective tissue the condition resulting is "medullary cancer;" and when the connective tissue is reduced to a minimum, and the cells occur in maximum number we get the "carcinoma sarcomatodes" of Borst and other writers. All these conditions may occur in the same specimen, or indeed in the same field of the microscope.

Every case of tumour of the breast at whatever age should be considered as malignant until proven to be otherwise. 70% of all tumours are cancer to begin with, and of the remainder, half to three-quarters will eventually become so. When the disease is recognizable

clinically as being definitely malignant, the time for radical cure has often passed. Pain may be absent or only a late symptom; fixation of the mass to the surrounding structures may only occur in the late stages, long after the lymphatics have become involved: enlargement of the lymphatic glands in the axilla usually occurs early, but we should not wait for this sign. It is commonly stated that glands which drain an area containing a cancer, may be enlarged from inflammation, but we should not put any dependence in this statement, but should remember that glands which to the sight and touch are normal, may be infected already. Anybody who has done much work with cancer of the breast will be impressed with this fact. Nor can we always tell from the gross appearance after removal whether a tumour be malignant or not. The only sure way is to have a microscopic diagnosis made, and this can only be accomplished by removing the whole mass and having a thorough examination made by a competent pathologist. Frozen sections can be made in a few minutes. If the tumour be found benign, the wound can be immediately sewn up. If malignant, the radical operation can be immediately proceeded with at the same sitting.

I know that many surgeons belittle the value of "rush" diagnoses, but they can be depended upon in the vast majority of cases.

If a laboratory be not immediately available, the mass should be removed, the sutures inserted but not tied, and the wound packed with a swab wrung out of half strength tincture iodine. Then the whole specimen should be immersed in alcohol, or 10% formalin, and sent to the laboratory for diagnosis. If reported benign, the pack which had been previously placed in the wound can be removed and the sutures tied. If malignant the radical operation should be immediately done. The necessity for a diagnosis before the wound has healed has been shown by Halstead, who found that where healing occurred before the nature of the tumour had been determined, recurrence would be the rule, no matter how radical an operation was done secondarily.

In cases where the diagnosis is cystic disease, a complete removal of the breast is indicated.

Several operations bearing the names of different men have been devised for the cure of cancer of the breast. All have one object in common—the removal of the tumour and as much healthy tissue as will ensure a complete extirpation of the extensions of the growth. Personally I prefer the technique of Rodman. He says—"There should be a free removal of skin: complete extirpation of the breast and premammary fat: removal of the pectoral muscles: a complete dissection of the axilla, and a free removal of the deep fascia covering the rectus, serratus magnus and external oblique. All tissues should be removed in one piece and without undue manipulation, so as to

avoid the possibility of expressing cancer cells from severed lymphatics, thereby incurring the risk of inoculating the wound." This description of the operation acknowledges the contention of Handley about removal of the fascia, and to it I would like to add, a dissection of the posterior triangle of the neck, when the highest axillary glands are involved, or when the growth is in the upper half of the breast. By adopting this plan, Halstead was enabled to materially increase his percentage of cures.

A case being an early one should not be an excuse for a partial operation. The earlier the case, the greater the hopefulness of, and the justification for the complete operation. In advanced inoperable cases Gibbon suggests refusing operation, for the result is sure to be a failure to cure the disease, and the public as a whole do not think of its having been a hopeless case from the start, but simply consider it another failure of surgery to cure the disease. They should be taught that the danger does not lie in surgery, but in delayed surgery, and when we refuse an inoperable case on the grounds of the patient's having waited until too late, then we shall see our cancer cases earlier, and with better results.

In the borderline cases we should make a careful examination for metastases in the bones. Pains in the shoulder or upper part of the humerus; or in the lumbar region; or in the hip joint, should make us suspicious of metastases in these regions. They are the places where we are most likely to find metastases in cancer of the breast.

The prognosis as to cure depends on—(a) the length of time the tumour has been developing. (b) the degree of outlying involvement. (c) the activity of the gland as determined by the age of the patient, and the relation to the period of lactation. Thus in very fat, or very young, or in lactating women the mortality is practically 100%. There has yet to be reported a cure in a case under 35 years of age. (d) the completeness and thoroughness of the removal of the growth.

Rodman in early cases before the glands are involved says he has 70% to 80% of cures; whereas when the glands are involved, he gets 20% to 40%.

Judd and Sistrunk reporting all cases from the Mayo Clinic, for a period of ten years, 1902-1912, give 47% living more than three years. Of these 27 have recurrence, leaving a percentage of 38.4 free from the disease.

The above figures are very optimistic, and probably represent the high water mark of achievement in the surgery of cancer of the breast as we see it today.

Contrast with these figures Brown reporting on 131 cases operated on during 15 years prior to 1912. Of these cases, 85 have been traced.

Recurrence occurred in six cases within a year; in forty-six within two years; in twenty-two within three years; and in ten within five years. There was a single case living.

Somewhere between these extremes is what the average man doing surgery may hope to accomplish in cancer of the breast.

DISCUSSION.

DR. CRAGIN: This paper deals with the subject from a pathological standpoint. As I read the paper, I thought the human side might be of interest; so I sent to Dr. Young at Augusta for some cancer statistics of the State of Maine. Dr. Young very kindly sent me the following report. He has given me the deaths from cancer from 1892 to 1913, twenty-two years; and in that time the number of deaths from cancer of all anatomical regions has been 13,403. Out of those, 1,256 have been cancer of the breast. That makes an average of cases of cancer of the breast of 57 and a slight fraction plus per year. In 1907 there were 70 deaths from cancer of the breast; in 1908, 64; in 1909, 62; in 1910, 77; in 1911, 65; in 1912, 61, and in 1913, 79; the last year showing the largest number of deaths in the whole series. My time for the discussion of this paper being rather short, I could not make my investigation as thorough as I would have liked to do; but I looked over the hospital reports that I had at hand for 1914, and I gleaned the following information which I think will be of interest. In the Augusta City Hospital for the year 1914 there were four cases of carcinoma of the breast operated on, and one case of adenocarcinoma; in the Central Maine General Hospital, eight cases of carcinoma, three cases of adenocarcinoma, and one case of adenofibroma; in the Eastern Maine General Hospital fourteen cases of cancer of the breast and four fibroma; in the Maine General Hospital, twenty-one cases of carcinoma of the breast. I was unable, in the short time I had to study it, to ascertain from their report whether there were any adenofibromas or sarcoma of the breast. There were cases of sarcoma reported, and adenosarcoma, but whether of the breast I could not make out. In Knox County there were five cases of amputation of the breast for carcinoma. So out of these five hospitals last year there were 52 cases of carcinoma of the breast operated on, four cases of adenocarcinoma and five cases of adenofibroma, besides some scattered cases.

Now the pathological diagnosis is, of course, the true diagnosis of cancer of the breast. At the same time we do have a few clinical symptoms which should be taken into consideration. I believe that it is absolutely wrong to consider every case suspicious of malignancy unless you prove to the patient as soon as possible that it either is malignant or is not malignant. Cysts of the breast, the galactoceles, and some forms of mastitis, may easily be mistaken for carcinoma. It merely adds to the mental agony of the patient to say "You have cancer of the breast," for they know that people with cancer of the breast are very apt to have recurrences. I have seen two cases of hysteria over the subject the last year, and I know that they had nothing but chronic mastitis at the time they were operated on. So possibly, if we substitute the microscope for mutilation, and, after forty-five years of age, we are suspicious of all cases of tumor of the breast, while before that we are cautious, it might make it a little more beneficial to womankind.

There are one or two things in the doctor's paper that I want to call at-

tention to, and one of them is concerning his statement in regard to Paget's nipple. I would like to note in passing that Ochsner, at page 216 of his 1915 edition, makes the following remark: Paget's nipple "is a dermatitis with a tendency to development of epithelioma." Unna makes the statement that Paget's nipple is "a disease of itself, but may develop into malignancy." Kaposi makes the remark that it is "an obstinate form of eczema," but admits it may be followed by carcinoma.

DR. WAKEFIELD: I have very little to say, gentlemen. I want to congratulate Dr. Gray on his excellent paper. I was especially interested in the description of the lymphatic side of the breast. I think that is very important for an operating surgeon to know. I rarely have heard a better description than Dr. Gray has given this morning. A point in regard to this subject it seems to me of vital importance is the diagnosis of border-line cases. Dr. Cragin in his remarks has touched on this. Of course, if a patient presents herself to us with a clear case of benign tumor, the only thing to be done is to remove the tumor. If the case is clearly malignant, the radical operation should be done. But what are we to do with the doubtful cases? I venture to say that not many surgeons in Maine have the services of a competent pathologist who can make, beside the operating table, diagnoses from sections. Now what is one to do? Dr. Gray suggests in his paper that one may remove the tumor, clean it out with iodine and alcohol, and wait for a report from the pathologist. To my mind that is rather a dangerous thing to do. I think if one is in doubt that it is always safer to do the radical operation. What harm do you do? In doing the radical operation at times when it is not necessary, perhaps you may cause some slight permanent impairment in the functions of the arm; but if you make a mistake the other way, and do an operation for benign tumor when it is malignant, you almost surely lose your patient. I think if one must err, he certainly had better err on the side of radicalism. I saw a surgeon of national reputation operate on a young woman for cancer of the breast not many months ago, and within ten minutes, to my mind, that man made two colossal surgical blunders. The first incision he made was through the center of the tumor, which I believe is unpardonable unless perhaps a small section is removed for microscopical purposes and the wound immediately cauterized. After that was done, and he looked at it for a moment, he then removed the breast, going to the axilla, which I believe is the wrong way of doing. I believe if we have learned anything from our experience, and from Halstead and other men who are doing a great deal of breast work, it is that the operation should begin in the axilla; that the first incision should be made to expose the axilla, the glands dissected in blocks very carefully, and then the breast removed.

THE PRESIDENT: The paper is open for general discussion. We have plenty of time this forenoon and I hope you will all take part.

DR. WHITTIER: My experience with cancer of the breast is entirely in the line of microscopic examination; and I would like to emphasize the need of thorough microscopic examination of cancer. It certainly is in the line of scientific progress to make careful examinations of these tumors, and to determine, as well as can be determined, whether or not they are malignant. In order to make an accurate determination, it is necessary in many cases to make a number of sections; to examine a number of sections of such tumors. Many times in examining tumors of the breast, I have examined a section from one part and found a typical picture of fibroma; then I have examined the

section of another part, distant perhaps only a quarter of an inch from the first part, and found a section that showed plainly cancer. Then, too, many cancers of the breast show pictures which are on the border line, their proliferation. The best pathologists are in doubt whether they should be classed as cancer, and yet you will find considerable proliferation. You are inclined to think them suspicious, and that they will develop into cancer if allowed to remain, and you feel, with the surgeon, that it is a good thing to have the cancer removed. My point is that there should be a careful inspection of the tumor; that the tumor should be opened and thoroughly inspected with the eye, and then, unless it is absolutely homogeneous, different parts of the tumor should be examined microscopically; thorough work should be done to the extent of examining five or six different parts of a large tumor. There is no rule about it; but generally I feel it necessary to examine several different parts. The idea of removing one single section of a large tumor, examining that, and deciding as to the malignancy from the picture shown of the single section when examined microscopically, is often wrong. I recommend thorough microscopic examination. (Applause)

DR. BENNETT: I do not wish to discuss this paper from a pathological standpoint, because I am not a pathologist. What little work I have in that direction Professor Whittier does for me, and does very nicely; but I want to speak a word in connection with the clinical aspect of the subject under discussion. You all know that a large part of these cases come first to the general practitioner, and it rests very largely with him as to what the outcome of each case is going to be. It is admitted, I think, by everyone that the distinction between malignant and benign disease of the breast is not always an easy one. Now should we countrymen not have some rule which we can fall back upon, and feel that we are reasonably sure we are on the right side? I have this feeling in regard to it. I believe that all breast tumors should be removed; and when a man of such standing as William Mayo makes a statement of that kind, we lesser lights cannot surely go very far astray in following his plan. I believe they should be removed and an examination made of a frozen section. This is admitted, I think, to be pretty good. I believe Professor Robinson states that only in two instances has the examination of the frozen section been different from the regular examination made later in the Mayo Clinic. Less than one per cent of those examinations differ from the examinations which afterwards follow; so, according to those statistics, it must surely be a pretty safe procedure. I believe that all breast tumors should be removed and that they should be removed under those conditions; and, if we general practitioners residing away from the center where this can be done, meet with such cases, we should send them where this can be done, and properly done. By doing so we are going to benefit our patients, it seems to me, to the greatest extent, and in many cases very many years of usefulness will be added to their lives. (Applause.)

DR. GORDON: Mr. President, I want to say perhaps ten words. I believe Dr. Wakefield has rather struck the keynote in this matter. There are certain cases of tumors of the breast that are actively cystic, and we ordinarily know it. In those cases we are perfectly justified in removing the tumor itself and nothing more; but a woman who is in the dangerous time of life, that is, beyond forty or forty-five, particularly if she has been a child-bearing woman, unless we are positively sure that it is a cystic condition, I believe in removing the entire breast, and everything that belongs to the modern radical operation.

I think it is the only safe rule that we can possibly follow with credit to ourselves and justice to the patient. If you are sure, and you can most always be sure if you have a cystic condition, and a comparatively young woman, it is sufficient there to remove the tumor; but if she is beyond forty, and you have a question of doubt, do the radical operation. (Applause.)

DR. ROBINSON: Mr. President, I have heard some of my unregenerate friends make a remark like this, that when they are in doubt they trump. I gather from that that they mean, when in doubt do the best you know how. This was all fought out in regard to appendicitis. There was a good deal of doubt as to when to operate, and we were told that we were operating altogether too much. Now it has come to pass that when the abdomen is opened, even if there is no doubt that it is a perfectly healthy appendix, the most of our patients demand that it be removed. The Bible says, "If thine eye offend thee, pluck it out." Why not say: "If thy right breast offend thee, cut it out," rather than run the danger of death. When we know that there is cancer in the breast, we know what the result will be, absolutely, if it is not removed, and pretty surely if it is, if delayed too long. In the one case you have the opportunity of saving life, and in the other case of saving a breast and losing the life. It seems to me that we should do as we have done in the matter of appendicitis—operate on all these cases.

THE PRESIDENT: If there is nothing further, gentlemen, I will ask Dr. Gray to close the discussion.

DR. GRAY: Mr. President, there seems to be a misunderstanding as to one or two things. Dr. Cragin spoke about mutilating your patient. I did not suggest any such thing. What I said was to remove the tumor, subject it to examination, and then, if malignant, you can go ahead with your radical operation. One gentleman spoke about taking a section of that tumor and sending it to the pathologist. I said send the whole tumor, and I think Dr. Whittier will agree with me that that is the thing to do.

So far as Paget's disease is concerned, there is still rather a large element of doubt, I will grant; but it has been shown by Rodman, and other observers, that in its incipiency, at its very earliest, the thing is a cancer.

Dr. Wakefield spoke about the border-line cases. I agree with him in those cases that sometimes you cannot make a diagnosis when in doubt. I do not think it hurts to let the patient wait for two or three days, and following the technique as I laid it down in the paper; that is, remove the whole growth, send it to the pathologist, and wait if necessary two or three days. You will not have to wait longer, certainly in Maine. You should not have to wait more than twenty-four or forty-eight hours, because the sections will be hard enough to cut in six hours.

Dr. Bennett has very wisely stated that there are no absolutely sure signs of malignancy in a tumor; and the only way to find out is, as I have said, to remove it and examine it.

*FIFTY FALSELY LABELED MEDICINES.

Federal Courts Condemn Goods or Fine Many Patent Medicine Manufacturers. Fifty Patent Medicines Proceeded Against for Fraudulent Claims as to Curative Powers of Products.

Washington, D. C.

More than half a hundred legal actions have been terminated successfully under the Sherley Amendment to the Food and Drugs Act, which prohibits false and fraudulent claims as to the curative or therapeutic effects of drugs or medicines. Criminal prosecutions against the manufacturers were brought in 25 cases, but in 31 instances the falsely and fraudulently labeled medicines were seized while in interstate commerce. Claims made by the manufacturers for the curative powers of these preparations ranged from tuberculosis, smallpox and diphtheria to coughs, colds and scalp diseases. A number of other criminal prosecutions and seizures are pending in various Federal courts throughout the United States because of alleged violations of the Sherley Amendment similar to those which have already been tried. The officials charged with the enforcement of the Food and Drugs Act are of the opinion that the evils of the patent medicine business can be stopped only by the most drastic action.

It is pointed out that traffic in medicines for which false and fraudulent claims are made is not only an economic fraud of the worst kind, in that a worthless preparation that costs but a few cents is frequently sold for a dollar or more a bottle, but that health, and even life, is endangered by failure to secure the service of a physician in such serious diseases as tuberculosis, diphtheria, pneumonia and scarlet fever, until too late, because reliance may have been placed in the curative powers of some worthless preparation which is claimed to be a never-failing remedy. The deluded victim may not realize his danger until the disease has reached a stage too far advanced for even the ablest physicians to cope with it. Effective treatment depends in most cases on applying it during the early stages of the disease.

Suggestive name of "Family Physician" fails to save this preparation.

The Houchens Medicine Company of Baltimore, Md., pleaded guilty to the charge that a preparation called "Family Physician" labels and accompanying circulars were diphtheria, scarlet fever, typhoid fever, smallpox, bronchitis, neuralgia, croup and all diseases of the throat and lungs. The following quotations from the label, carton,

*Office of Information, U. S. Dept. of Agriculture.

or circular are interesting: "The Public is hereby assured that this is the Genuine and Original Family Physician. . . . For fever you need not give anything else but this medicine, it will keep the rash out itself. . . . For cases of small pox, take plenty and often . . . Use freely. Give no hot teas, just give the medicine and what pimples are under the skin will come out, the rest will be carried off by the medicine. . . . Also a wonderful and positive remedy for dyspepsia, keeps measles out nicely, regulates the bowels without trouble, and by purifying the blood prevents your liability to disease."

Analysis of the product, which was claimed by the manufacturer to be effective in the treatment of so many virulent and contagious diseases, as well as a variety of minor ills, showed that it was a sirup containing 19.2 per cent non-volatile matter, 8.9 per cent alcohol, anise, and a vegetable cathartic drug. The government, therefore, charged that the medicine did not contain ingredients or medicinal agents effective for the relief and cure of the diseases which it was claimed to cure. The court imposed a fine of \$75.

Remarkable Claims for Dr. H. A. Inghani's Vegetable Expectorant Nervine Pain Extractor.

A plea of guilty was entered by H. A. Ingham and Co. of Vergennes, Vt., to the charge that statements and claims as to curative powers of a product called "Dr. H. A. Ingham's Vegetable Expectorant Nervine Pain Extractor" were false and fraudulent. An analysis of a sample of the product by the Bureau of Chemistry showed the same to contain alcohol, 86 per cent; opium alkaloids, camphor, capsicum, and vegetable extractive matter. The government, therefore, alleged that the medicine did not contain ingredients or medicinal agents effective, as the labels or circulars asserted, to subdue raging fever, or to cure typhoid fever, lung fever, scarlet fever, rheumatic fever, cholera, dysentery, sunstroke, diphtheria, bleeding at the lungs, nervous exhaustion, or piles, or to prevent fits of apoplexy and epilepsy when coming on, or to heal without inflammation or suffering all wounds, sprains, or burns, or to break up a felon, or to cure congestion of the lungs, pleurisy, fits of apoplexy, chronic rheumatism, paralyzed limbs, and croup.

It was also alleged by the government that the statements "For teething and restless children, it is not only safe and harmless, but positively beneficial; it agrees with the most tender child or feeble infant," were false and misleading in that they were of such nature as to mislead the purchasers into the belief that the article contained no harmful or poisonous ingredient, whereas, in fact it did contain morphin and other opium alkaloids of a poisonous and deleterious nature.

such as might prove harmful and deleterious to the health of tender children and feeble infants, and other persons, if consumed by them. The court fined the defendant \$100.

Seized Four Thousand Bottles of "Father John's Medicine."

Four thousand and ninety-two bottles of "Father John's Medicine" were seized in Philadelphia, Pa., it being alleged in the libel that the labels on the bottles and on the pasteboard packages containing the bottles bore statements regarding the curative effects of the medicine that were false and fraudulent. Claims were made by the manufacturers for the efficacy of the medicine in the treatment of consumption, coughs, colds, croup, asthma, bronchitis, sore throat, whooping cough, pneumonia, catarrh, rickets, and a number of other ailments. A judgment of condemnation and forfeiture was entered, and it was ordered by the court that the product be delivered to Carleton and Hovey Company, Lowell, Mass., upon payment of all the costs in the proceedings and the execution of a bond in the sum of \$5,000, to insure that the goods would not be sold unless truthfully relabeled.

Jury Says "Guilty" for Misbranding "Bad-Em-Salz".

A verdict of "guilty" was rendered against the American Laboratories, a corporation located at Philadelphia, Pa., for shipping into interstate commerce a product called "Bad-Em-Salz" which it was alleged was falsely and fraudulently labeled. An analysis of a sample of the product showed that it consisted of common salt, Glauber salt, baking soda, and a small amount of tartaric acid. It was claimed by the manufacturers that this preparation reproduced the medicinal properties of the great European springs famous for centuries for the cure of diseases of the stomach, intestines, liver, kidneys, or bladder, and that it represented the medicinal agents obtained by the evaporating of the water from famous European springs. The government alleged among other things that these claims were false and misleading. It was also alleged that the statements in the circular indicating that the preparation contained ingredients or medicinal agents effective for dissolving gall stones, for the prevention of gastritis, for curing diabetes, for preventing or checking chronic inflammation of the kidneys, and for relieving catarrh of the bladder, were false and fraudulent. A fine of \$100 was imposed by the court.

Long List of Other Misbranded Medicines.

The following list includes other preparations against which the government's charge that they were falsely or fraudulently labeled was sustained by the Federal courts. Statements were made on the

labels of, or on the circulars accompanying, the preparations intended to make the purchaser believe that the medicines were effective cures for a great variety of diseases for which they were recommended by the manufacturers or promoters. The main allegations of the government were upheld by the courts and judgment accordingly entered in connection with each of the following preparations:

Radam's Microbe Killer	Green Mountain Oil
Hilton's Specific	Weber's Genuine Alpine Herb Tea
Smith's Agricultural Liniment	Montague's Liniment
Dr. Sullivan's Sure Solvent	Coe's Cough Balsam
Russell's White Drops	White Stone Lithia Water
Stramoline	Kalamazoo Celery and Sarsaparilla Compound
Wild Cherry Pepsin	Quality Damiana Compound
Moreau's Wine of Anise	Dennis Eucalyptus Ointment
Dr. Herman Koch's Brand Phosphate, Celery and Gin Compound	Cassidy's 4X The Great Blood Purifier
Swissco Hair and Scalp Remedy	Porter's Antiseptic Healing Oil
Cod Liver Oil with Syrup of Tar	Ballard's Horehound Syrup Comp.
Dr. Mozley's Lemon Elixir	Dr. Shoop's Night Cure
Sa-Yo Mint Jujubes	Dr. Shoop's Cough Remedy
Gray's Glycerine Tonic Compound	Dr. Shoop's Restorative
Dr. Martel's Female Pills	Rheumacide
Quickstep, Frye's Remedy	Rice's Mothers' Joy Salve
Seawright's Magnesian Lithia Water	Milam
Hill's Aromatic Ext. Cod Liver Oil (Hollander-Koshland Co.)	Old Jim Field's Phosphate Dill and Gin
Black's Pulmonic Syrup	Stuart's Buchu and Juniper Compound
Tetterine	Ozomulsion
Laxative Quinine Tablets	Jones' Break Up
Mrs. Joe Person's Remedy	Carswell's Liver Aid
Maignen Antiseptic Powder	Dr. Shoop's Twenty Minute Croup Remedy
Cranitonic Scalp Food-Hair Food	Rogers' Consumption Cure and Cough Lozenges
Dr. David Kennedy's Cal-Cure Solvent	Rogers' Inhalant
Schencks Pulmonic Syrup	
Keller's Flaxseedine	
Tutt's Pills	
Universal Rheumatic Remedy	

JOURNAL OF MAINE MEDICAL ASSOCIATION

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Editorial Comment.

The New State Sanitorium.

In the transfer of the Hebron property to the State of Maine it is interesting to look into the history of the former Institution, which was started in 1901.

In its beginning, no money could be obtained from the State, but a sufficient amount was solicited to buy the site and, for three years, nothing more was accomplished. The Trustees then decided to borrow \$10,000, giving their personal notes as a security.

It was impossible to offer salary to any man as an inducement to superintend the affairs of the Institution, but Dr. Nichols was induced to take this position, and spent two years in investigating the work of similar kind, following which, buildings were constructed, and the work of the Institution begun.

During the first four years, there was a scarcity of working capital, so much so, that the medical director served without salary. From this time on, funds were somewhat easier in the way of donations, together with the two appropriations from the State, so that the present plant is worth \$250,000 with a \$281,000 endowment fund. It has now been turned over to the State at a very small figure in hopes that the work may be broadened, and secure accommodations for the worthy poor.

The Maine Medical Association is interested in the welfare of the Institution, not only in the fact that prominent members of the Association were active in its early organization, but that the Association contributed \$1,000 to help along the good work in its early days.

While this transfer is intended to be for the benefit of the worthy poor, it is still the duty of the medical profession to use their influence in eliminating the control of this Institution from politics. The investigation of the State Hospital for the Insane should not prevent a large number of medical men from losing sight of the possibility of a similar recurrence in other State Institutions and do everything possible to secure a fair and non-partisan administration.

Dr. Nichols, who has been closely identified with the upbuilding of Hebron, has severed his connection with the Institution, taken a much needed rest, and is now located in Portland.

Censorship on our Advertising.

When the Journal of the Maine Medical Association issued its first copies, there was no strict censorship on advertising, so that it was justifiable to secure any form of advertisements, and the greater number, the greater income with which to work.

There has always been the feeling with all thoughtful medical men that the advertising of medical specialties should come under some censorship. This matter was finally taken up by the Council on Pharmacy and Chemistry, when they began to publish the New and Non-Official Remedies, and they proceeded to rule out all articles which were misbranded, or had false claims as to curative results.

The Journal of the American Medical Association closed its advertising pages to advertising material not acceptable to the Council. Nearly all of the medical journals, which are owned and published by the state associations, have followed this good example, so that, at the present time, the medical profession can more safely turn to the advertising columns of their State medical journal for the articles they want rather than to the privately owned medical journals, where no censorship attains. This is of greater advantage to the medical profession and to the advertiser alike, and should appeal very strongly to both.

The Maine Journal belongs to the members of the Maine Medical Association, and its lease of life depends largely on the membership, as they have the power to vote to continue or discontinue it at any of the annual State meetings.

The Editorial Board, together with the county editors, and other officials of the Association, have worked hard to make the Journal of value to members of the Association, and naturally feel that they in turn should endeavor to assist in the work as far as possible.

One-half of the income of the Journal comes from our advertisers.

and they should be increased to three-quarters, thereby leaving a larger balance in the State Treasury to carry on the Association work. If each member would scan the advertising pages of each issue, and restrict his patronage, as far as possible, to those concerns patronizing our Journal, there would be no question as to the result. The Co-operative Advertising Bureau of Chicago thoroughly investigates every prospective advertising concern, not only as regards the nature of their advertisements, but as to their financial responsibilities, so that we have no hesitation in recommending these concerns as thoroughly reliable to do business with.

Now doctor, give us your support for a bigger and better Journal.

County News and Notes.

CUMBERLAND.

CUMBERLAND COUNTY MEDICAL SOCIETY.

The thirty-seventh regular stated meeting of the Cumberland County Medical Society was held Friday evening, October the eighth, at the Congress Square Hotel. There were forty-eight members in attendance. Dr. Gordon K. Dickinson of Jersey City was to be the speaker of the evening, but at the last minute a telegram was received announcing his sudden illness and consequent inability to be present. In his stead, Dr. Paul D. White, resident physician in the Massachusetts General Hospital, addressed the Society on the following subject: "The Value of the Graphic Method in the Diagnosis of Heart Disease." Dr. White took up the study of bradycardia and tachycardia, explaining the etiology and significance of each and presented the newer and more generally accepted physiology of the heart. It was a most interesting topic and all the members voiced the opinion that we were most fortunate in obtaining the services of Dr. White.

Dr. Dennis J. O'Brion of Portland, was elected to membership. The consideration of the applications of Dr. W. A. Coombs of Westbrook and Dr. E. J. Noyes of Lovell was postponed until a later date,

inasmuch as they must be residents of this county, for a year, before they may be admitted to the Society.

Dr. Clarence W. Foss of Brunswick was automatically made a member of this Society, as he had been a member of the State Society for a number of years, and had made due application for membership.

Following the scientific meeting, the usual lunch and entertainment was offered.

ADAM P. LEIGHTON, JR., *Secretary.*

YORK.

The 82nd quarterly meeting of the York County Medical Society was held at the Yorkshire Inn, York Harbor, Thursday, Oct. 1st. The meeting was called to order at noon, Dr. J. M. O'Connor, Biddeford, President of the society, in the chair. The minutes of the June meeting were read and approved. Dr. Omer E. Boivin of Biddeford was elected a member. One application for membership was received and referred to the Board of Censors.

A clam-bake was an enjoyable feature of the day's program.

At the afternoon session, Dr. Willis Bean Moulton of Portland gave a paper entitled, "Acute Gonorrhœa in the Female." The essayist presented his subject ably and emphatically. A good discussion was the result.

Especially interesting remarks were made by Dr. H. R. Farris of Oxford; Dr. R. W. E. Cole of York Village, director of the Health Department of the town of York, and a specialist in sanitation; and Dr. John C. Stewart of York Village. Dr. Stewart has been engaged in the practice of law for many years, having given up active medical work nearly thirty years ago. However, he never has lost his interest in the medical profession. Dr. Stewart a few weeks ago announced his intention of being a candidate in the primaries for the Republican nomination for representative in Congress from the first district of Maine.

There was considerable spirited discussion relative to some of our members obliged to be engaged in contract lodge practice. It was voted finally that this matter be laid on the table until the January meeting.

There were present: Drs. F. W. Smith, W. W. Varrell, York Harbor; J. C. Stewart, E. C. Cook, R. W. E. Cole, York Village; J. W. Gordon, W. W. Smith, Ogunquit; L. W. Carpenter, Limerick; A. S. Davis, Springvale; S. B. Marshall, Alfred; C. E. Cook, South Berwick; F. C. Lord, Kennebunk; H. L. Prescott, Kennebunkport; J. L. M. Willis, Eliot; R. L. Maybury, Saco; C. E. Thompson, J. D. Cochrane, Saco; D. E. Dolloff, E. D. O'Neill, C. J. Emery, C. F. Traynor, C. F. Kendall, J. M. O'Connor, A. C. Maynard, O. E. Boivin, Biddeford; H. R. Farris, Oxford; W. B. Moulton, Portland; W. O. Junkins, A. B. Sherburne, C. W. Hannaford, H. L. Taylor, Portsmouth, N. H.; J. A. Randall, A. L. Jones, Old Orchard

Medico-Literary Notes.

A Surgical Course for Internes.

By Dr. A. E. Chace. "The Bacterial Flora of Trees and Men," by Dr. S. J. Maher, and "Medical Literature and its preparation," by Dr. E. Mayer.

Having been honored by the arrival of these reprints, we feel in duty bound to say a few words concerning each of them, because they are all papers out of the common rut. Each one is distinguished by a careful style and individuality of thought and contents.

The paper on Internes goes into the very important topic of some form of improved education for those few medical students who by personal ability succeed in obtaining after the granting of their degree in medicine, a chance to study for a precious year in a hospital with more or less wealth of material. Dr. Chace argues from four points of view regarding internes. Their attitude which compels them to surround each statement with proof, before making it. This includes conscientious taking of the history of cases, examinations of the patient, laboratory studies, careful following of operations performed, and a great deal more time to be given to the examination of the dead body. To this comes the second point: the habit of systematic work, the planning how to utilize time. The third point is energy to review the theory, so as to connect it with the given instance: and finally the ambition to study in new fields, to originate, to cease to be a blind follower of those who are a bit ahead of us in years and apparent authoritative knowledge.

Dr. Maher's paper deals with the connection which he proves to exist between the flora of our native trees and the bacteria which at various seasons of the year develop in mankind of each sex, and at every age of life. From the paper we are led to see what is so lightly thought of, that from the flora of trees we get our ever present tuberculosis and the wintery epidemics of fierce and unrelenting pneumonia. Rarely has it been given to us to observe in the annual address before any State Medical Society an oration of such suggestive value as this delivered in June of the current year before the Connecticut Medical Society by Dr. Maher of New Haven.

Last of all, our attention is due to a serious paper by Dr. Mayer, on the writing of medical papers. Opening his own paper by emphasizing the lack of good, satisfying medical papers, in the literature of today, the author goes on to point out errors by the writers, and errors by editors, in admitting for publication so many papers which have bad style, and hardly any contents at all. There is a sad lack of condensation. Emphasis is laid on the actual way in which to begin a paper, the question of the personal pronoun I, errors in grammar, errors in bibliography: all papers should have well-drawn out conclusions. Titles should be plain. Of what use it is to say "Interesting Cases;" "Wonderful Operations," and so on, because from the index, later on, who can know exactly what was meant? In conclusion, the

writer of this essay, emphasizes the need of accuracy, and simplicity, of language. In conclusion, we can only wish that more stress had been laid on the most common fault of medical papers of today and that is the enormous amount of quotations inserted.

J. A. S.

IMPORTANT ANNOUNCEMENT.

It is or should be an honor to present a paper before the Maine Medical Association. The Committee on Program for the ensuing year, conscious of this fact, feels strongly that only those of merit deserve a place on the program; and proposes to institute a somewhat different method for their selection from that which has hitherto prevailed,—competition.

With the single exception of the annual orator, persons will be assigned to the program whose papers conform most closely to certain requirements which the committee regards as elemental.

First.—The topic dealt with should be timely.

Second.—It should represent the experience of the writers so far as may be, or it should be a first hand account of a personal observation of the work of others.

Third.—It should, if possible, be an addition to the summary of medical knowledge.

Fourth.—Form will not be accepted for substance.

It is desirable that all papers be in the hands of the chairman of the Committee not later than March 1, 1916; and that each essayist submit the names of two members of the profession who are competent and *who have agreed* to open the discussion upon his particular topic. Bear in mind, too, the time limit of twenty minutes for all readers and five minutes for subsequent speakers.

This competition is open to all members of the State Association, irrespective of how recently one may have read. Its object is the presentation at the next session of papers of worth and, incidentally, to provide a stimulus for better and original work.

The best eight or ten papers in the judgment of the committee will make up the program, and the fortunate ones will be duly notified of their selection. It is earnestly hoped that many will avail themselves of the privilege and opportunity herewith extended to contribute to medical knowledge and to the success of our next meeting.

E. W. GEHRING,

J. F. THOMPSON,

H. E. MILLIKEN,

Committee on Program.

July 12, 1915.

Report of the Section of Ophthalmology and Oto-Laryngology, June, 1915.

In accordance with the call of the Secretary, the annual meeting of the section of Ophthalmology and Oto-laryngology was held at Poland Springs, June 9, 1915.

The meeting was called to order by the President, Brown.

Present: Drs. Brown, Hill, Clough, H. T., Holt, Spalding, Bowers, Norton, Little, Gilbert, Beach, Moran, Haskell, Andrews and Holt, Jr.

The reading of the records of the previous meeting was omitted.

The Treasurer's report was read and accepted.

Dr. Spalding's report as a committee of one on Conservation of Vision and on Publication of Proceedings of the Section was read and accepted.

Voted: To pay the expenses of the Chairman incurred during the year.

A vote of thanks was extended to Dr. Spalding for the work done.

Voted, that these reports be published in the Medical Journal press.

The election of officers for the coming year resulted as follows:
Chairman — Little.

Vice Chairman—Beach.

Secretary and Treasurer—Holt, Jr.

The Chairman appointed as his Executive Committee, Bowers, Chairman, and Andrews and Gilbert.

Dr. W. E. Kerschner of Bath was recommended for membership.

Dr. Spalding reported two cases of retinal hemorrhages in one of which the resulting scotoma was in the lower field and was very depressing to the patient; and in the other the scotoma was above and gave no trouble. The patient with scotoma below consulted another oculist who said it was a case for a general practitioner. Dr. Spalding took exception to this advice on the grounds that the general practitioner would take little interest in these cases. He recalled having had one case cured by hypodermic injections of pilocarpin.

Another case of glaucoma upon which an Elliott operation had been done came under his care recently. The lens was cataractous, probably traumatic, so that vision was 20/200. A little later the patient developed glaucoma in the other eye which responded to pilocarpin, hot fomentations, etc., and had remained quiet since.

Dr. Bowers reported a case of a woman, age 65, who was led into his office. Vision equaled Fingers 2 meters. The ophthalmoscope showed choked disc in each eye. Her blood pressure was 320 s. Had a consultant who withdrew one quart of blood. Next day much better every way and the vision had improved to 20/50. During the past month no improvement. Regretted that the blood pressure was not taken the next day.

Dr. Holt reported a woman who consulted him for the removal of cataract, in whom the blood pressure was over 250 s. Refused to

operate until this condition was relieved. He used repeated doses of calomel followed by magnesia sulphate. In cases of retinal hemorrhages, he don't believe in putting patients to bed, because the heart in the recumbent position has a better advantage to pump blood in the head region. In these cases, he recommended head racks.

Dr. Norton asked what could be done in the case of physicians who take very short courses in ophthalmology and then signified their intention of becoming specialists. He knew of two who spent only one or two days in New York.

Dr. Haskell replied that a condition of this kind would be righted in time.

Voted to adjourn.

E. E. HOLT, JR., *Secretary.*

Chronic Intestinal Stasis with Infections from a Surgical Point of View.

By W. B. Russ, M. D., San Antonio, Texas.

The conclusions of Dr. Russ's article are as follows:

(1) In considering intestinal stasis from a surgical point of view, we are concerned almost exclusively with neurotic and visceroprotic subjects who are unable, except under the most favorable conditions, to withstand even the ordinary wear and tear of life.

(2) Obstinate constipation and lowered resistance predispose the patients to infection, which, however, may not do serious harm unless the local immunizing mechanism of the bowel wall and the protecting influences of the other body defenses have been overcome.

(3) Cases of intestinal stasis, even though infection and toxemia are present, are primarily not surgical cases, and if the patients are properly treated, very few ever need become surgical. They are, however, pre-eminently institutional cases and require prolonged and careful treatment.

(4) No operation that will destroy the future functional usefulness of the bowel should be done in the cases that can be helped only by surgical interference.

(5) The cases which colectomy, either partial or complete, seems to relieve for a time, could probably be relieved permanently by much less radical means.

(6) Short-circuiting operations are, as a rule, to be condemned.

In the discussion of this paper, Dr. Coffey said: "I have done a good many operations of the colectomy type and some few of the short-circuit type, but have come to the conclusion, by seeing a considerable number of these cases both from the medical and surgical standpoint, that any operation which involves the opening of the lumen of the intestines is to be avoided except in very rare and extreme cases.

Dr. Rea Smith said: "I wish particularly to indorse the statement of Dr. Russ that most cases of intestinal stasis are medical. Others who discussed this paper, in general, indorsed the views expressed by Dr. Russ. Dr. Russ lays much stress upon the proper medical treatment of these cases, which he considers is best carried out in a private hospital or other institution.

RICHARD F. CHASE.

Personal News and Notes.

Dr. Sumner C. Hill of Sanford, lieutenant of the Sixth Company, C. A. C., went to Jacksonville, Fla., during the first part of October to attend the annual shoot of the Maine Rifle team.

Dr. F. C. Lord of Kennebunk is to pass his annual vacation, beginning November 1st, in New York, where he will take a course of study in a hospital.

THE MOVIES.

The progress made in the character of subjects presented in the movies today, makes it desirable for all enquiring people to at least attend occasionally. Annoying after-effects on the eyes of many prevent them from enjoying the social diversion and often the educational advantages thus derived. The great majority of those who suffer from eye strain after watching moving pictures can find much, if not complete, relief in perfectly fitted glasses. The picture may not be quite so sharp, but this is more than compensated for by the increased comfort. For those with very sensitive eyes, a colored glass, either amber, yellowish green or amethyst, may be necessary to give complete relief. There have been put on the market recently several varieties of colored glass, each of which has some advantages, so that some suitable color can usually be secured. A subdued light in the theatre is much less irritating than when the only light visible comes from the screen. It is also advisable to avoid sitting in a place where it is necessary to look upward, as the additional strain becomes very tiresome, and frequently leaves a headache.—Jour. A. M. A.

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***THE SENILE HEART.**

By H. R. FARRIS, M. D., OXFORD, MAINE.

As an observer of the changing phenomena which take place in the physical organism as it advances from youth to manhood and from manhood to age, I have been led from personal and professional reasons to consult colleagues and literature for causes which accelerate or retard physical changes which result from the passage of years. We often hear the expression, "We are all growing old together," and it is true that the years come and go with equal rapidity to all, but the physical changes wrought by the passage of time can hardly be said to be equal in any two individuals. One man may be young at seventy and another old at forty. Sir Robert Christison, in a report on the emerged risks of the Standard Life Insurance Company, stated that the statistics he was dealing with seemed to show that few, even of the aged, die from natural decay, but mostly from some specific disease, just as younger people. And he also said that "The term, 'natural decay,' when given as a cause of death, was little less than an admission of ignorance."

It is conciliatory to have such high authority for believing that at the most advanced age, death is not due to age alone, but to disease; because we always personify disease and feel that we may escape it, we can fight it, and often overcome it, but age is the "carle dour" to whom we must all succumb. Hence a well founded belief that disease and not age, has been the cause of death, even at the most advanced ages hitherto recorded, is fraught with the hope that science, if not luck, may make the patriarchal ages again our own, and that the

*Read before the Maine Medical Association at Poland Springs, June 10, 1915.

mantle of Methuselah may fall upon the shoulders of his twentieth century successors. Many years ago an old writer recorded the traditional experience of his time in these memorable words: "The days of our years are three score years and ten, and if by reason of strength, they be four score years, yet is their strength labor and sorrow, for it is soon cut off and we wither away." The Psalmist does not set up three score years and ten as the age to which all must attain and which none may exceed, but merely states it as the average limit of a full and complete life, beyond which but few may pass and that by reason of strength. And the same conditions are true today for we learn from statistics, that of every 100,000 persons born, one-fourth die before the fifth year, one-half before the fiftieth year, one in a hundred will reach his ninetieth year and only two of the 100,000 will reach the advanced age of 105. The life of the human body having thus an end as well as a beginning, it seems to me it may be identified with development and all its phases inseparably linked with structural change, and that it is within ourselves that we must look for the cause why the processes of assimilation, oxidation and the genesis of force gradually fall out of correspondence with the relation between oxygen and food.

The characteristic of the circulation in youth is that the amplitude of the large arteries is great, as compared with the size of the heart and the length of the body. During young life the body grows in every part, but the growth of the arteries in caliber does not keep pace with the growth of the body in length, or with the growth of the heart in amplitude and strength. The natural result is a gradual rise in the blood pressure and a gradual slowing of the pulse rate. As development progresses, the arterial coats slowly undergo a change by which they lose their elasticity and become converted into more or less rigid tubes. The result of this lack of resiliency in the arterial coats is that while the arteries yield as formally to the advancing blood stream, they do it much more slowly and do not recover themselves so that their lumen is gradually increased. In age, with loss of arterial elasticity, a greater strain is thrown upon the heart, yet the blood pressure in the capillaries is lowered owing to the intermittent character of the flow. The cessation of growth makes a large net of capillaries unnecessary and the fall of blood pressure in these vessels causes many of them to obsolesce. By the time the heart has succeeded in dilating the inelastic arteries and has restored them to their former relative magnitude, the increase in the peripheral resistance caused by the withering of the capillaries is sufficient to prevent any material lowering of the blood pressure from that cause. By and by, however, this is brought about by a gradual weakening of the heart through

failure of the genesis of force, due to failure of assimilation, arising from withering of the capillaries in the skeletal muscles as well as in the glands of the body. Decay is thus the necessary and final stage of development, and though it may not be possible to put a finger upon any special function or structure and say "here decay commences" yet we can say positively that the arterial system, which leads the van in the development of the body, is the line along which decay is marching and is the structure in which we can earliest detect the withering effects of age. From our earliest days the growth of our frame is accompanied by a gradual condensation of tissue till the gelatinous pulp of the primitive embryo is converted into the withered old man.

Two organs largely escape the effects of normal failure; the brain and the heart. As for the heart, this organ has long been known to be hypertrophied in all old people. M. Bixot tells that "Old age is, in both sexes, that period in which the heart attains its greatest dimensions." Charcot, in his lectures on senile disease says that "Unlike every other organ in the body, but the kidney, the heart preserves even in old age the dimensions of middle life, the heart may even undergo a real hypertrophy." Cohnheim also says, "The heart of old persons, does not as a rule, participate in the general atrophy of the body, and especially of the muscles, but rather increases in mass and volume." This hypertrophy of the heart, therefore, being common to all must be looked upon as a part of our development, and is physiological and not pathological.

Among the external causes that may be mentioned as tending to weaken a normally hypertrophied myocardium are: acute disease, loss of blood from any cause, long continued dyspepsia, plethora from overindulgence in food, abuse of stimulants and narcotics, untoward domestic affairs, worry of an unsuccessful business or the wear and tear of a too successful business that has outgrown the physical power of its manager. The symptoms of this weakened myocardium vary somewhat in each case but there is a generic similarity in all. Precordial anxiety is what is usually first complained of, and however indefinite this may sound, it is a source of extreme distress to the patient. Breathlessness, pain and cardiac irregularity, in one or another of its various forms, are also early symptoms. As all these symptoms may be present in the absence of any definite sign of cardiac lesion they are often grouped together under the indefinite term of nervous heart. A term applicable enough if it is used to signify that the symptoms are brought about through the agency of the nervous system, but quite incorrect if employed to suggest that such symptoms have no basic or physical changes in the heart itself. It may be accepted as an axiom that all cardiac symptoms complained of after middle life, that can-

not be referred to some definite disease, may be regarded as originating in actual or relative weakness of the myocardium. If we examine the heart at this stage we find on palpitation that any sensation of pulsation in the cardiac area is but feeble, while the apex beat is weak or imperceptible, the percussion dullness is normal, on oscultation the sounds are normal, or if there is any change there may be a slight accentuation of the aortic second, which indicates a dilated or dilatable aorta; and the sound is caused by the excess of blood in the inelastic ascending aorta falling back on the aortic valves and closing them with unusual force.

Breathlessness is a common symptom of cardiac failure at any age and is never absent when exertion is called for. The ease with which it is induced is an indication of the amount of dilation present, and in connection with the senile heart, has a special significance; here exertion is not necessary to induce it, it may come on while the patient is at perfect rest and may even awake him at night. Under these circumstances it gets the name of cardiac asthma.

Palpitation and tremor cordis, while distressing to the patient are of comparative insignificance, more common in young and adult life, usually of reflex origin and have no special association with the senile heart.

Tachycardia, or heart hurry, is a symptom not confined to the senile heart, nor to the later half of life, but is more dangerous to the aged and in them it is always pathological. I shall only mention a few of the many causes that may produce attacks of tachycardia, lasting for longer or shorter intervals during young and adult life. The most common are: emotions, exhausting diseases, anemias, toxemias, abuse of alcohol and narcotics, and overdoses of certain drugs like digitalis and belladonna which by paralyzing the vagus nerve, allows the heart virtually to run away with itself unrestrained. But I want to lay special stress upon the rapid hearts of old people, due to causes within the circulation itself. We have a senile heart which has been doing excellent work, it has normally hypertrophied to meet the extra demand imposed upon it by the gradual condensation of tissue, decreased elasticity of the arterial coats and lessening of the capillary area; the coronary arteries have shared in the general change and the heart is not quite as well nourished, it begins to feel the strain and hastens its pace a little to meet the extra demand. This increase in rate means a shortening of the systole and a slight residual accumulation within the left ventricle with dilatation of its wall. At this stage we have brought into active operation the law of physics that "The strain upon the walls of a sphere or spheroid increases with its circumference" and therefore the resistance to contraction of the heart

wall increases whenever it becomes dilated. The cause remaining operative, we have established a vicious cycle; increased strain causing increased dilatation and increased dilatation causing increased strain.

Angina pectoris is essentially a symptom of the senile heart, eighty per cent. of all cases occurring after the fortieth year. The term pseudo-angina is a misnomer for angina is only a symptom and if well marked should not be stigmatized as "pseudo" even if it occurs in youth. We are apt to think of angina pectoris as a painful affection of the myocardium, but there is such a thing as "angina sine dolore," in fact many of the most severe and fatal cases are characterized by an entire absence of pain.

Up to the completion of puberty, the pulmonary artery is larger than the ascending aorta; with the advance of maturer years and the coincident changes in the circulatory system, a change takes place in the relative size of these vessels. The effect of this change is of the greatest importance. In young life the blood circulating through the lungs at a high blood pressure gives off its carbonic acid gas more freely and more completely than after middle life when it flows through the lungs at a lower pressure. Hence, after middle life there is a gradually increasing venosity of the blood. Add to this the facts that in the state of civilization man is always supplied with a superfluity of food and drinks and that the many luxurious appliances of civilized life aid and abet the natural indolence that grows upon man as age advances and we have the essential causes for the gouty diathesis, a diathesis present in each of us after middle life and in a large measure due to the changes in the character and composition of the blood induced by the evils of civilization, deficient exercise and excess of nutriment. If we could comprehend the deleterious effects produced upon the delicate organs and tissues of the body by being constantly bathed in a blood poorly oxygenated and flooded with a redundancy of nutritive material we could more readily understand many of the indefinite symptoms complained of by our adult patients and appropriate treatment would suggest itself.

It is important to differentiate between a gouty, or senile, glycosuria and a true diabetes: the first a concomitant of a congested liver incident to the circulatory changes of advanced years, less injurious and more amendable to treatment; the second occurring in younger life and of much more serious import.

Urea is a normal constituent of the urine and is the end product of oxidation of the nitrogenous bodies. When this is replaced by uric acid, we know that oxidation has not been complete. This lack of oxidation is due either to an excess of nitrogenous food or a hypo-oxygenated blood stream. After forty years of age both causes are likely to be operative.

The connection between the kidneys and the heart has long been of great interest to the profession. I shall not attempt a discussion of the voluminous literature on the subject, but will only say that I believe the contracted gouty kidney of the aged to be but a part of the general arterio-capillary fibrosis, and when the condition of the kidney becomes manifest by a trace of albumin in the urine, the hypertrophy and dilatation of the left ventricle is well advanced.

The heart is the one organ of the body whose sufferings are most apt to disturb the equanimity, even of the most imperturbable. Hence palpitation, intermission, irregularity and tremor-cordis, which makes themselves so disagreeably perceptible to the senses, appeal most forcibly to the imagination of the patient, and bring him more certainly to the physician than cardiac ailments of more serious import but of less obtrusive character. Senile diseases are always degenerative and tend to precipitate the natural termination of life. The object of treatment in senile affections is not, therefore, quite the same as in the diseases of earlier life. We no longer hope for complete restoration but we expect to alleviate suffering and to check decadence. In this fight with mortality, medicines have their place and power,—but it is the attention to the little things of daily life, the little things of eating, drinking and doing, that influence the patient's comfort and gradually turn the scales of health in his favor. Herein lies one of the great difficulties in the way of successful treatment, for when the regulations of the physician are pitted against the habits of a lifetime, there is sometimes difficulty in securing acquiescence. Having secured the co-operation of our patient, our first endeavor must be to discover and remove any possible source of enfeeblement, and our next endeavor to build up and energize the frame generally, and the heart in particular. Exercise, diet and medicines are the three agents to be employed to this end. Exercise and diet are paramount in maintaining the integrity of a healthy organism, and properly employed, they are also of the greatest value in restoring it when lost. In cases of broken compensation it is necessary to insist upon complete rest for a time, but as the normal balance becomes restored regular and moderate exertion will help to keep the myocardium well nourished.

Temperance, or moderation in all things, is a rule all would do well to follow. There are multitudes who are eager to enforce a rabid teetotalism upon all their fellow men as the only panacea for health, happiness and longevity, but to those who can afford to transgress, to the well to do, excess in food is a much more serious menace to health and life than excess in drink, and this is especially so in regard to affections of the senile heart. All those who, after middle life, complain of cardiac symptoms require to be dieted for some reason or

other. The condition of the patient and his leading symptoms supply the indication for which we have to provide. A mixed diet is ordinarily to be preferred and patients showing any evidence of soakage of the tissues need to have a specially dry diet prescribed for them. The following three rules should be laid down as applicable to all cases:

1. There must not be less than five hours between meals.
2. No solid food of any kind is to be taken between meals.
3. The most important meal must be served in the middle of the day.

Tobacco, or its alkaloid nicotine, is a potent narcotic poison, its action on the heart is exerted through the vagus which it first stimulates and then paralyzes, and elderly people with feeble hearts should be very chary, even as to its moderate use.

The drugs that are likely to be of benefit in treating affections of the senile heart are few, but of great importance. Digitalis is the foremost of all cardiac tonics and has rightly been termed "the queen of the pharmacopceia." I have accustomed myself to the use of Squibb's Tincture. In this form the dose can readily be increased or diminished and I have found the results uniform and satisfactory. In cases where the arterial coats are firm and inelastic, it is always wise to use in addition to digitalis, some of the vascular stimulants, to unlock as it were the arterioles and promote the free passage of blood to the veins. Of these drugs the iodide of potassium and the nitrites are the most commonly used. Nitroglycerine and amyl nitrite are indispensable for their rapid action in cases of angina, but iodide of potassium is more useful given in small doses over long periods of time. Notwithstanding the amount of adverse comment, I have found cactine a most valuable remedy in treating affections of the senile heart.

Nux Vomica and its alkaloid strychnine are much used as cardiac stimulants, but it is my belief that they work more powerfully upon the nervous system than upon the cardiac muscle.

Arsenic is a valuable tonic, and is especially useful in anemic patients suffering from weakened circulation. Its effect in angina is sometimes almost magical. Breathlessness is a thing almost unknown among the Styrian mountaineers who are accustomed to take arsenic in very large doses over long periods of time. Arsenious acid in 1/100 to 1/50 grain doses or Fowler's Solution in three to five drop doses may be given for many months with only increasing benefit.

Analgesics and hypnotics are necessary in treating affections of the senile heart to relieve pain and to produce sleep. Morphine is the one hypnotic which is also a sure analgesic. Given hypodermically, it is rapid and sure in its action, relieves angina with or without pain, is

antispasmodic and lowers the blood pressure by relaxing the arterioles and so favoring the transference of the blood from the arteries to the veins. If used cautiously in these senile cases, there is little risk of provoking the habit.

To re-capitulate my conclusions:—Senile changes are the ultimate result of development. Senile changes are accelerated by excesses of all kinds, worry and overwork. The circulatory system is the first to suffer.

Treatment consists in removing the cause, careful dieting, rest at first, followed by regulated exercise, judicious employment of cardiac, nerve, and blood tonics and the careful use of analgesics and hypnotics when indicated.

Each case must be carefully considered from every point, and thoroughly individualized, and the treatment best adapted to attain the end in view firmly laid and *persistent*ly carried out. A disease that has been gradually coming on for thirty or forty years cannot be expected to yield to a week or two of treatment. It often takes many months of care before an irregular heart is made regular, or the declemision of a failing heart is checked. In time, however, all this can be done, but only by a skillful imitation of natural processes and the steady accumulation of trifling advantages.

DISCUSSION.

DR. A. S. THAYER: Mr. President, in this paper of Dr. Farris's there are two points that impress themselves particularly upon us. First, the pathological changes which he has outlined in the heart and arteries—and I think we are coming to think of the heart and arteries as really one organ with two specialized functions. These pathological changes of hardening, hypertrophy, and so forth, are just about the things that we would expect to be mentioned in a paper on the senile heart. Secondly, there is the very practical point which Dr. Farris has made that, in old people, there is a very special liability to clogging. There is very little that I would wish to criticize in the paper. Possibly some of us might be inclined to be a little more indulgent than the essayist in granting the old man the use of his pipe. The old woman does not demand it so much as formerly; although we have seen both of them taking comfort more than commensurate with any deleterious effects that might result from the use of the tobacco. Then, again, possibly we might not all insist, as the essayist does in all cases upon an interval of five hours between the meals of old people. However, these are minor points, about which each man has his own ideas, and as to which he has made his own observations.

Personally, Mr. President, I think I shall carry away as the most striking lesson which the paper teaches this fact, which the essayist has brought out so well that I think he might almost be said to have suggested it to us as a maxim, namely: *Physic the old man well.*

THE PRESIDENT: If there is nothing further to be said in discussion of this paper, Dr. Farris may have the floor.

DR. FARRIS: Mr. President, I do not think I have anything to say. There is one point in regard to angina pectoris that impresses me, and that is the cases of angina without pain. I was formerly impressed with the idea that it was simply a painful affection; but I have become convinced from my study that it partakes of cardiac asthma and dyspnea, and that these conditions are caused by faulty circulation.

References: — Blood-Pressure	Faught
Stone	A. M. A., Oct. 4, 1913
Miller	A. M. A., Oct. 4, 1913
Janeway	A. M. A., Dec. 14, 1913
A. M. A.,.....	June 26, 1913, page 314
Clippings from A. M. A. during Year of 1913.	

*BLOOD PRESSURE AND SOME OF ITS CLINICAL VALUES.

C. H. WITHERELL, OAKLAND, ME.

Like all modern advances "Blood Pressure" has its critics and its champions. There are still many who are sceptical as to the value of this so-called "Blood Pressure." Dr. Janeway asks and answers the following question, "When should the general practitioner measure the blood pressure?" To this he replies:

First. In every careful examination of the cardiovascular system.

Second. In the first examination of every new patient, and the occasional examination for the purpose of establishing prognosis in cases of hypertension, cardiovascular disease and in nephritis.

Third. In examination for the certificate of health, such as applicants for life insurance, recruits for the army, navy, police, fire departments, etc., and the examination of boys and others for competition in athletics.

In order to intelligently employ and to clinically estimate the value of blood pressure findings in any case, we must know what constitute the normal boundaries of blood pressure; what factors may normally influence the reading, and what constitutes an abnormal or

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pathological blood pressure. To save time and space I shall simply name the normal limits as generally accepted by a large number of clinicians using the standard cuff, with width of compression surface, 5 inches; and using the mercury scale.

Systolic Pressure. At age 20 equals 120 mm. of mercury. From age 20 upwards, add $\frac{1}{2}$ mm. mercury for each year.

Diastolic Pressure. Averages between 80 and 100.

It has been established that blood pressure is influenced normally by age, sex, time of day, size and temperament, digestion, muscular development, muscular exertion, and mental worry or fatigue.

In regard to these factors I wish to state that, even though we feel somewhat skeptical as to their true value, yet by carefully watching our instrument we find that the normal limits vary only a few millimetres on the scale, while the true pathologic conditions vary the readings from 50 to 100 mm.

Systolic Pressure is the term applied to the blood pressure within a given vessel when the maximum force is exerted within it during ventricular systole. Diastolic Pressure is the degree of pressure exerted within a vessel under observation during cardiac diastole, and represents the lowest pressure occurring in the vessel during the cardiac cycle.

Pulse pressure is taken as the difference between the systolic and diastolic pressures. In other words, the difference between the *maximum pressure* exerted by the *kinetic energy* of the blood column and the minimum pressure or *potential energy* exerted by the vessel walls is the pulse pressure. It represents the intermittent burden of pressure imposed upon the arteries by the heart's energy in systole in order to force the blood toward the periphery and to maintain the circulation. The pulse pressure may therefore be defined as the amount of pressure exerted by the heart during systole in excess of the diastolic pressure. It measures the excess of dynamic over potential energy. For clinical purposes it represents the load of the heart. Under normal conditions it is approximately 50% of the diastolic pressure.

The systolic and pulse pressures represent myocardial values, while the diastolic pressure represents the arterial resistance. For example: taking the normal figures as given: Systolic 120 mm.; diastolic, 80 mm. Pulse pressure would, therefore, equal the difference between 120 and 80, or 40. Heart load would equal

$$\frac{\text{Pulse Pressure}}{\text{Diastolic}} \quad \text{or} \quad \frac{40}{80} = 50\%.$$

In a series of fifty-one patients with hypertension, Stone found the average systolic pressure to be 161; the diastolic, 95; and the pulse pressure, 66; an overload of 19%. The question immediately arises as to how long the heart integrity may be preserved under such conditions. It is apparent that many persons with high pressure, and many hearts with impaired valves are not seriously embarrassed for many years, owing to the compensatory hypertrophy and the increased capacity for work which fortunately follow. It should be emphasized that high systolic, with slightly increased diastolic, pressures and a corresponding increase in pulse pressure is a compensatory attempt on the part of the heart to adjust itself to new conditions. Preceding circulatory failure, but while the myocardial efficiency is impaired, there may be an essential change in the readings with a tendency toward equal or higher pulse pressure than diastolic pressure.

Stone (Journal of the A. M. A., Oct. 4, 1913,) states that "Six of fourteen decompensated myocardial cases the pulse pressure approached or exceeded the diastolic." I shall quote two of his cases.

CASE 4. J. B. — Mitral regurgitation with decompensation. Diastolic averages 57. Pulse pressure 90. The amount of energy expended was 90/57 or 158% — an overload of 108%.

CASE 6. Miss A. C. — Mitral stenosis with regurgitation. Diastolic averages 85. Pulse pressure 70. Amount of energy expended, 70/85 or 82% — an overload of 32%.

Furthermore, he states, "we may consider that under certain conditions the myocardial overload may exist for years with little or no evidence of decompensation. Judging from this small series of cases it would appear that when the overload factor exceeds 50%, the patient may be in danger of myocardial exhaustion at any time from slight overstrain. In fact, a majority of the forty-seven hypertension patients past forty years of age in this series did not show clinical symptoms of hypertension until the overload factor exceeded 25%. Some were quite free from symptoms when the overload was 50%, but most of these were able to regulate their lives free from the liability of overstrain. As a rule the greater the overload the greater the danger of myocardial fatigue from overstrain; while on the other hand if the overload is less than 50% and the diastolic reading is higher, then we would expect cerebral trouble rather than myocardial. I quote two more cases of Dr. Stone to illustrate:— Case 7. Mrs. W. J., aged 53. Plethora. Systolic 180. Diastolic 130. Pulse pressure 50. Heart load 50/130 or 38%. Because of high diastolic and low heart load, we would expect cerebral rather than myocardial trouble.

Case 8. E. L. Aged 63. History of earlier angina. Systolic 170. Diastolic 85. Pulse pressure 85. Heart load 100%. Overload 50%. Here we would expect myocardial decompensation at any time of overstrain.

At present I have a patient aged 71, whom I attended over a year ago during anginal attack. Dr. Thayer of Waterville saw this case with me after the attack. During the past year and at the present time I am taking his blood pressure regularly every Saturday. To illustrate the importance of Diastolic reading and overload I will state from my records the following, which is a fair average of each day's reading.

9 A. M.—Systolic 120. Diastolic 90. Pulse pressure 30. Heart load 30/90 or 33%. Heart sounds weak but regular.

7.30 P. M.—Had been in his store during the day. Systolic 120. Diastolic 75. Pulse pressure 45. Heart load 45/75 or 60%. An overload of only 10%. Yet examination shows heart sounds weak.

Pulse intermittent on 8th, 9th, and 12th, beat seems to lose one beat and then after two beats loses two, then regular for 8 to 20.

This man is in danger of myocardial decompensation from overstrain. This case further illustrates that the decreases in pulse pressure and heart load after rest, as shown in the reading taken at 9 A. M. shows weakness of heart muscles probably a sclerotic condition of the coronary arteries.

In normal persons pulse pressure and heart load are increased by exercise. Marked variations within short intervals in pulse pressure should make one think of the neurotic cardiac element due to tobacco, alcohol or neurasthenia.

The Clinical Values of Blood Pressure may be divided into three classes, hypotension, or abnormal low pressure; hypertension,—abnormal high pressure but amendable to treatment, and high pressure. A few of the conditions accompanied by hypotension are— aortic regurgitation; tuberculosis; typhoid fever; pneumonia and neurasthenia.

Aortic regurgitation is characterized by a high systolic pressure, markedly low diastolic and a very marked high pulse pressure. Faught states—"upon this alone diagnosis can be made."

Illustrative of this is a patient of mine—Mrs. M. P., aged 61. Her average systolic pressure from Jan. 22 to Feb. 4, 1914, was 185. Diastolic 58. Pulse pressure 127. Heart load 218%. Overload 168%.

Careful records show effects of treatment also diagnostic as to amount of exercise and diet.

Tuberculosis—In uncomplicated T. B. of lungs systolic pressure tends to fall. Diastolic to remain stationary or to rise. Hypotension unexplained should suggest careful examination for T. B.

Haven Emerson stated, that hypotension in T. B. is marked and constant in advanced cases and frequently enough found in the very early or doubtful cases to warrant its use as a valuable differential sign, and further, hypotension is progressive as the process advances and rises with progress toward recovery; the pressure returning to normal in cases that are cured.

Typhoid Fever — Here we find hypotension more often than in any other acute infection. Systolic usually 100 or less; decreasing as disease progresses. Diastolic remains about the same; heart load increases; significant of weakened heart, needs complete rest and more active stimulation. Rapid fall in pressure denotes hemorrhage, amount of fall indicates extent of hemorrhage. When perforation takes place, pressure rises above its original level to fall again when peritonitis sets in. Nephritis causes a rise and the pressure remains high. Hence difference between perforation and nephritis.

Pneumonia — Gibson says "When arterial pressure expressed in millimeters of mercury does not fall below pulse rate expressed in beats per minute, the fact may be taken as of excellent augury, while the converse is equally true." Here again heart load must be watched that acute dilation does not take place due to overstrain during convalescence.

In pure neurasthenia cases, having as their prominent characteristic profound fatigue, we find a marked hypotension. It is not easy to say, whether the low blood pressure is the cause or effect of the fatigue, but a rise in blood pressure almost invariably accompanies improvement.

"The direct effect of a falling blood pressure is the accumulation of an abnormal amount of blood in the veins and a slowing of the current in the arteries. This will affect the capillary circulation and interfere with the nutritive and secretory processes which depend upon it. The most serious effect is on the heart, as it has been shown that complete loss of vaso-motor tone soon leads to death, because of the gradual accumulation of nearly all the blood in the body on the venous side so that the heart has no blood upon which to act."

As indicative of downward pressure in the last stages of organic heart trouble, I will cite a case Dr. Towne of Waterville saw with me in consultation Feb. 3, 1914. Mr. L., aged 75. Jan. 31.—His systolic was 170. Diastolic 110. Pulse pressure 60. Heart load 54%. Feb. 1.—Systolic 130. Diastolic 100. Pulse pressure 30. Heart load 30%. Feb. 2.—Same. Feb. 3.—Nine hours before death. Systolic 120. Diastolic 100. Pulse pressure 20. Heart load 20%. Two hours before death: Systolic 100. Diastolic 100. Pulse pressure 00. Heart load 00.

The chief value of hypotension is the valuable aid derived both for differential diagnosis, prognosis and as a guide for treatment. It alone can give timely warning of the onset of the hypotension accompanying vaso-motor paralysis from shock or any other cause.

Hypertension, in the general acceptance of the term, has come to mean, any condition in which the blood pressure is maintained at a level above normal.

Faught recommends that the term hypertension be limited to that condition first described by Huchard and termed by him "Presclerosis." And to designate all other high pressures, which are either dependent upon, or accompanied by distinct and easily recognized arterial, kidney or heart changes, as true high blood pressure.

Thus we limit the term hypertension to a condition dependent largely, if not solely, upon a muscular change in the arterial walls and capillaries, whereby they are temporarily narrowed and constricted, as contrasted to true high pressure, where there is a permanent pathologic change either in some part or all of the cardiovascular-renal system, and which can never be entirely overcome by treatment. By adhering to this distinction we are immediately enabled to appreciate the etiology of each of these conditions and also to explain the difference in the results obtained by methods directed toward their relief or the relief of the symptoms caused by them.

It is absolutely necessary to differentiate between this presclerosis and true high pressure; for we must never lose sight of the fact that true high pressure is a symptom only, merely a small part of the whole pathologic picture and it should never possess the entire field of our vision. True high blood pressure is not to be interfered with heedlessly, as it is one of nature's aids to overcome certain conditions. Presclerosis is always harmful. It may be entirely unnoticed by palpitation, absolutely unrecognized except by blood pressure test. On the other hand it may be barely felt as a sort of a stiffening of the arteries or artery, there may be a sharp second aortic sound or even a slight whiff over the heart, while the urine appears absolutely normal. Blood pressure reading will be from 140 to 180. This presclerosis or hypertension is designated by Huchard, Russell, Faught and others as the danger signal,—a warning—that some change in the daily life of the patient must take place or else this condition will eventually merge into a case of cardiovascular-renal disease. Any such increase of blood pressure, as just described, in a young adult or in one in middle life, in the absence of physical signs of organic change in heart, blood vessels or kidneys, is always a sign of chronic toxemia, arising from some error in metabolism or faulty elimination, either intestinal or urinary or both. Usually careful questioning shows

such symptoms, as fleeting dizziness, tinnitus aurium, disturbed sleep, cold hands and feet, gastric distress and flatulency, constipation, lack of interest in work, etc. Also examination of patient's dietary as suggested by Dr. Emerson, shows cause and means of correcting the faulty metabolism.

To illustrate chronic toxemia as a cause of hypertension I will quote one of my cases. Mrs. H. F., age 48. For past year has been very short of breath on exertion. Dizzy. Headaches. "Sparks before eyes." Every night at eleven o'clock had severe attack of pain through lower part of sternum and around heart extending into left shoulder and down left arm. Has lost about 35 pounds during past year. Family history,—Negative. Personal history,—One boy 11 years old, in good health. Has miscarried three times; one macerated foetus. Occasional sore throat; has had "spells" of canker in mouth.

Jan. 19, 1914.—Systolic 250. Diastolic 100. Pulse pressure 150. Heart load 150%. Overload 100%. Heart sounds sharp and metallic. Catherterized specimen of urine normal. Arteries stiff like pipe stems.

Jan. 21, 1914.—Systolic 260. Diastolic 100. Pulse pressure 160%. Heart load 160%. Overload 110%. Patient put to bed. Tc. Digitalis, tested sol. gtts. 3. every four hours. Karrell's milk diet. Bacillus Bulgaricus Tab. t. i. d. Potass. Iodide. sat. sol. gtts. 10. t. i. d., increasing each day by one drop.

Jan. 23, 1914.—Systolic 240. Diastolic 110. Pulse pressure 130. Heart load 118%. Overload 68%. From Jan. 31 to Feb. 4, Systolic dropped to 210. Diastolic 120. Pulse pressure 90. Heart load 75%. Overload 25%.

Abnormal high blood pressure as shown by the instrument is a symptom that is *far more important* from the standpoint of *prognosis* than from *diagnosis*. Arterial and renal changes have always been considered the most important factors in high blood pressure. All authorities seem to place most importance upon the renal side while less and less weight is placed upon the arterial. True arterio-sclerosis is much less often found than is commonly suspected. For as Miller states "normal urinary findings do not exclude serious kidney involvement. The careful necropsy studies, and especially the careful histologic examination of the kidneys of patients with approximately normal urines, and high blood pressure, have shown how fallacious it may be to exclude nephritis in the absence of albumen and casts. Especially in extreme hypertension, 200 mm. or more, some form of nephritis is almost constantly present, and is probably responsible for the increased blood pressure."

Yet there are a few instances (there would be more if we recognized them sooner) where hypertension already described is merging into arterio-sclerosis. Symptoms of hypertension define arterio-sclerosis especially if these symptoms are carried over a long period. Added to them are spells of severe headaches, nausea, and sudden vertigo; this is due to the irritation and diminished nutrition of the cerebral centres from the high pressure and the narrowed arteries. Oftentimes these symptoms in themselves are passed off as due to some nervous condition and not until they suffer a cerebral hemorrhage or show signs of cardiac weakness do we realize their true condition.

Statistics markedly show the predominance of nephritis in patients with continued high blood pressure.

Faught states "that a permanent elevation of both systolic and diastolic blood pressure is the most prominent and characteristic sign of well developed chronic nephritis." The pressure is higher than that seen usually in any other chronic disease.

I have at present two cases; one carrying a pressure of 180 to 210 mm. Diastolic 100 to 110. Pulse pressure 80. The other a systolic of 240 to 260. The diastolic pressure is usually increased but not in proportion to the systolic, it is usually 60 to 90 mm. lower. Therefore we have a marked increased pulse pressure, evidence in itself of unnecessary over-work of the heart. A failing heart causes pressure to fall and a gradually narrowing of pulse pressure. This fact in itself shows significance of blood pressure as an indicator to be used only in the complete clinical picture. The patient with blood pressure 180 mentioned above illustrates this. She is perfectly comfortable at these readings; any attempt to lower same causes trouble. Increase of pressure shows marked increase of toxemia. For the past year I have regulated her diet and exercise simply from my blood pressure readings, as all physical signs and symptoms remain the same unless there is a decrease or increase of blood pressure.

Each patient with high blood pressure and probable kidney lesion must be a case unto itself. Routine examination of blood pressure often finds a mean pressure at which height the patient seems most comfortable:—Therefore so far as possible keep your patient near this level.

Dr. Janeway in the A. M. A., Dec. 14, 1912. Concludes from "The Study of Death in 100 Patients with High Blood Pressure."

First. The early occurrence of dyspnoea, whether on effort or of the paroxysmal type, in a patient with high blood pressure, indicates marked danger of cardiac insufficiency. In such patients the disease must be treated as a cardiac disease, especially by safe-guarding methods.

Second. Anginoid pain, even when of marked severity occurring on exertion in persons with high blood pressure, does not make the prognosis worse than do other cardiac symptoms. Of course every precaution must be taken to prevent over-exertion. The majority of these patients will not die in an anginal paroxysm.

Third. Complaint of polyuria, nocturnal frequency, marked headache, or of visual disturbances by a patient with high blood pressure, especially if that patient be below 50 years of age should make the prognosis very guarded, for uremia is a frequent mode of termination in these cases.

He also states "not lowering the blood pressure but safeguarding the circulation is the aim of treatment."

Before concluding, I wish to mention the value of blood-pressure examination in myocardial degeneration. It makes little difference whether the degeneration be fatty, fibroid, weak or chronic—the end is eventually the same and our chief aim is to guard against overstrain.

"Graupner's Test is based upon the physiologic fact that a given amount of exercise, such as ten bending movements, or running up a flight of stairs, causes both an acceleration in the pulse rate and a rise in blood pressure, but the latter does not occur coincidentally with the former; or if, as in some cases, the pressure does rise first, it fails to rise again after the pulse has returned to normal. It is this secondary rise which indicates a good heart muscle. A not too seriously affected heart may show a rise in blood pressure immediately after the exertion, but with the slowing of the pulse, the pressure will be found to have fallen to a level lower than before the experiment."

In concluding, I have a few suggestions:—Use one grade instrument. Faught's mercury scale is most accurate.

Make all readings in same posture so that future readings may be fairly compared.

Pay particular attention to Diastolic readings as this with pulse pressure gives heart load, which is by far the most important aid of blood pressure. Do not fail to record the effects of exercise as this gives true condition of myocardium or even though a patient may be comfortable and there is entire absence of decompensation an overload of more than 50° means beware of overstrain.

**REPORT OF THE COMMITTEE ON CONSERVATION OF
VISION, PRESENTED TO THE EYE AND EAR
SECTION OF THE MAINE MEDICAL
ASSOCIATION, JUNE 9, 1915.**

When in 1913 you elected me a Committee of One, to carry out the plans of the Public Health Committee of the American Medical Association for Conservation of Vision, little did I think of the labor to be undergone in carrying out the task committed to my care. Regardless, however, of what labor might be involved, or what time spent, and practice reduced by absence from home, I accepted your nomination. On the same day I informed the National Committee of that acceptance, and began to compose a lecture on the many topics involved in the subject of the Care of the Eyes. The farther I went into this task, the clearer it became that the topics for lectures would need constant change, according to the audiences to be addressed. Physicians, nurses, superintendents of schools, teachers, students in college and in schools, would require certain points to be presented to them and drilled into them if any proper care of the eyes were to be obtained. Without mentioning all of the points calling for emphasis to every possible audience, it may be said in brief: That, physicians would need suggestions in the careful use of the obstetric forceps, in prevention and treatment of ophthalmia, first aid in injuries and treatment of simpler eye diseases; nurses should be instructed in the same points, and to them should be emphasized great care of their own eyes in the treatment of ophthalmia and they should be urged, whenever they served, to mention care of the eyes in the exanthemata and during convalescence: college students should be warned to the effects of gonorrhœa and syphilis on the eyes, accidents in laboratories and sports and overwork of the eyes with Greek, Hebrew and German type; superintendents should be told of the need of well printed books, the harm in blackboard work, and the lighting of schools, so that in every part of every school-room, diamond type could be read, and in lieu of light enough for that, on any day or at any time of day, artificial light should be employed.

Scholars should be taught with the test type before them for size, to make in blackboard work figures and letters of thickness sufficient to be seen at 50 feet; a general audience should be instructed in the risks of ophthalmia, care to keep sunlight from children's eyes, accidents from knives, scissors, pins and toys, projecting missiles with dangerous force against the eyes: to these topics, might be added, talks concerning lenses, frames, set of lenses and their cost, and the proper amount of work for the eyes by artificial light.

- On two topics I have never said a word: Opticians and Refraction. Although Maine was lobbied into a law for eye sight testing without examination for fitness, it has not been in my province to protest. Refraction is an abstruse problem, incomprehensible to most people. It is also doubtful whether those who suffer from its errors care for its name, so long as their lenses fit. That this opinion is true, is borne out by the fact that no one after a lecture has ever asked me a question concerning refraction. I am sorry that the stereopticon pictures sent out by the A. M. A. were so defective. I have in lieu of them, handed around after each lecture various pictures showing ophthalmia, treatment of that disease, set of lenses, and others of that sort.

If asked if any public interest was shown in these lectures, I should say that there was none. Although advertised according to instructions, the attendance was at times discouraging. If you ask if those who came, were interested, I should say most positively: Yes, indeed, even children. Judging also from questions asked, I say the interest was great.

I regret that only twice was I invited to speak. The remaining lectures were forced from people by repeated demands. Amongst the obstacles were: invitations turned down with a "NO;" "Other engagements for the winter," a sneer; that the writer could not understand how any lecture on Care of the Eyes could be made of the least public interest.

In a few instances no notice was taken of letters and even stamped replies were kept by the receiver. It is also much to be regretted that your Committee's plan to have a paper on the Care of the Eyes read before each County Medical Society came to naught in most of the counties. In so important a matter of public health as this, it would seem as though the physicians of Maine would have invited one lecturer to each county, to say nothing of the opportunity thus offered to invite the attendance of nurses attached to local hospitals. For this neglect there seems no excuse considering efforts made, and mention emphasized of the plan in the State Journal.

I have the honor to announce that in spite of obstacles, I have, in carrying out to the best of my ability the task handed to me, travelled about 1,800 miles, including trips to Presque Isle and back and to Boston and return. So far as I am concerned, most of the talks have been given outside of Portland, so that no fellow-member might suggest that I had tried to obtain local advantage by doing local work myself. To Dr. F. Y. Gilbert has been given the only chance in Portland, and to him thanks are due. Thanks for valued assistance are also due to Drs. Mitchell, Gilbert of Calais, Brown, Clough, Hill,

Beach, Norton, Andrews and Vickery. To Hon. Payson Smith, I am also much indebted for steady co-operation in the good cause, and many chances to meet the superintendents and teachers of Maine.

The number of talks was over 50; the largest audience was over 700 teachers at Brunswick. The smallest was 4, where, owing to mis-understanding of place and time, only that number came. Fortunately, the school was in session in the same building, and owing to kindness of the superintendent, 100 scholars filled the hall, the lecture intended for adults was cast aside, and another one composed from memory on moving pictures, blackboard work, injuries in sports and at home, and proper care of the eyes in the growing years of life. I never have spoken to a more attentive audience. If more of my colleagues have not been invited to join in the campaign, it has been largely to spare their feelings, for it would have been mortifying to them, and to me, if in the instance just mentioned I had given one of them so promising a chance, only to find that he had lost his fares, his time, and his practice, to speak to a mere handful of people.

I am glad to be able to say that all of our colleges have received instruction in Conservation of Vision, and it is to be hoped that every year every Freshman Class in each college in Maine shall listen to a common sense talk of this sort. Let me recommend my fellow members to cultivate a lecture on this topic and to make it as plain and easy to comprehend as possible. To any one interested, I shall be glad to offer them my printed points of view for such a lecture, and to it, let them add what they choose.

To conclude: in this arduous campaign I have written hundreds of letters, paid out much money, and made nothing at all. Most of my costs I am glad to defray and to say nothing about them. If the Section sees fit to pay the appended bill, I shall be thankful. To me, the business has been a labor of love, and when I can, as I now do, stand before any audience and without any notes at all apparently interest them for an hour, I feel as if the advantage in public speaking which I have hereby gained by talking for the public health, and in obedience to the instructions of this Section, have been well worth the time so abundantly and so freely given.

Respectfully submitted,

JAMES A. SPALDING, M. D., Portland,
Committee of One on Conservation of Vision, 1913-15.

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Editorial Comment.

Care of the Eyes.

At the last meeting of the Maine Medical Association, the Committee on Conservation of Vision, or more popularly speaking, the Care of the Eyes, handed in a report which has since been printed in the Journal of the Association. From this report, we regret to find a great lack of public interest in so important a matter of public health. For, in it is shown, that free lectures on the care of the eyes by competent physicians appointed by the committee were offered to the public for two winters in succession, but largely in vain. The Committee met with constant rebuffs and polite declinations of their services, so that during that long period they were unable all over the State to obtain but very few chances to express their views. Fifty lectures in all were reported, some of them twice in the same place, but as a matter of public health, one would think that double or even three times that number of chances should have been offered the interested lecturers.

Everywhere we see people wearing glasses; studying advertisements we see compulsory examination of the eyesight demanded as a condition of employment so that men and women are compelled by law to prove the possession of two good eyes before they can get good pay; studying the statistics of injuries under Workmen's Compensation Laws, we note many eyes injured by preventable accidents, and visiting our blind schools, we discover many who lost their sight in infancy from preventable disease, and others who having lost an eye by accident have become totally blind owing to sympathy between

the injured eye and its fellow. These things and others of vital importance to many people are of daily occurrence before us, yet here are competent men going about at their own expense, leaving their business to take care of itself, hunting for chances to instruct the people concerning care of their eyes, yet how few people take the least notice of their humane efforts.

It may be true that physicians are not always fluent speakers, but if they had more opportunities offered, they would improve by practice, whilst the ability of some of them in this direction compares favorably with that of any other lecturers.

We cannot go farther into the details of this report and of the good work done in colleges, academies and schools by these lecturers, but we hope that if this band of trained oculists open another campaign in 1915-16, they will get more chances to speak than they have before enjoyed. It seems positive to us, that as there is a law for the sight testing of all children of Maine, once a year, this law should be supplemented by a plain, common sense talk to every freshman class in every college; to the training teachers in every normal school, and in every centre of school population at least once a year. Surely, if public health lectures on tuberculosis, typhoid and other diseases are worth while having and paying for, from men outside of Maine, it ought to be true that Maine physicians, competent to speak on the care of the eyes, simply, briefly and intelligently and without pay except actual costs of travel, should be encouraged in their work by invitations and audiences embracing both children and adults.

Controlling Cancer in England.

Portsmouth was the first municipality in England to undertake a public educational campaign for the control of cancer and it would appear that the measures adopted in 1913 are already taking effect. The annual report of the Medical Officer of Health, Dr. A. Mearns Fraser, for the year 1914, which has just been received, states that there were only 197 deaths from cancer in Portsmouth last year as compared with 230 in 1913. This decrease, which occurs in the face of an increase of population, is hailed with satisfaction by the Portsmouth sanitary authorities as justifying their efforts to reduce the cancer death rate by persuading persons who are attacked with this disease to avoid delay and to seek treatment before it is too late for more than palliative measures. Dr. Fraser reports that from statements made to him by local medical men the publication of circulars

and newspaper articles by the Health Department has been instrumental in inducing a number of persons suffering from early operable cancer to secure treatment, the result of which it is hoped will be permanent.

When the educational measures were put in force two years ago, the cancer death rate of the city had for a long period been increasing. Twenty years ago the average death rate from cancer in Portsmouth was 6.79 per 10,000 of the population, but in 1913 it had risen to 9.16 per 10,000. In that year, the total number of deaths was only 34 less than were caused by tuberculosis. While admitting that the increase in the recorded cancer death rate might have been caused in part by improved methods of diagnosis, the Health Committee of the Portsmouth Town Council nevertheless believed that the present number of deaths was unnecessarily large, and they felt it incumbent to adopt whatever measures might lessen the ravages of the disease. The initiative came from Dr. Charles P. Childe, senior surgeon of the Royal Portsmouth Hospital and a member of the Health Committee of the Town Council. As early as 1906, Dr. Childe in his book, "The Control of the Scourge" had given to the public the benefit of his extended experience with cancer. At his suggestion, the Portsmouth authorities in 1913 began a campaign of public education under the official auspices of the Health Department. The methods adopted included the monthly publication in the local newspapers of articles regarding cancer and the printing and distribution of a Health Department circular on the subject. Arrangements were made for periodical lectures to midwives, nurses, and to those engaged in social work in Portsmouth. The Health Department further made provision for free microscopical examinations and reports on suspected cancerous growths in order to assist physicians in immediate diagnosis in the case of patients who were unable to pay for such laboratory service. The experience of the Portsmouth authorities had been that by far the majority of patients who presented themselves at hospitals suffering from cancer exhibited the disease in a stage too advanced to be cured. It was held that the reason for this delay in seeking advice was not as a rule because patients feared operation, but because they were ignorant that they were suffering from anything serious until they began to suffer pain. The fact that cancer at its onset is almost always painless should be widely realized in order that the public may learn the importance of other symptoms which will enable them to recognize the disease in the early stages when it can nearly always be successfully removed by competent surgery.

—American Society, Control of Cancer.

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Vol. I. Nos. 8, 10, 11, 12, Vol. II. No. 2.

IMPORTANT ANNOUNCEMENT.

It is or should be an honor to present a paper before the Maine Medical Association. The Committee on Program for the ensuing year, conscious of this fact, feel strongly that only those of merit deserve a place on the program; and proposes to institute a somewhat different method for their selection from that which has hitherto prevailed,—competition.

With the single exception of the annual orator, persons will be assigned to the program whose papers conform most closely to certain requirements which the committee regards as elemental.

First.—The topic dealt with should be timely.

Second.—It should represent the experience of the writers so far as may be, or it should be a first hand account of a personal observation of the work of others.

Third.—It should, if possible, be an addition to the summary of medical knowledge.

Fourth.—Form will not be accepted for substance.

It is desirable that all papers be in the hands of the chairman of the Committee not later than March 1, 1916; and that each essayist submit the names of two members of the profession who are competent and *who have agreed* to open the discussion upon his particular topic. Bear in mind, too, the time limit of twenty minutes for all readers and five minutes for subsequent speakers.

This competition is open to all members of the State Association, irrespective of how recently one may have read. Its object is the presentation at the next session of papers of worth and, incidentally, to provide a stimulus for better and original work.

The best eight or ten papers in the judgment of the committee will make up the program, and the fortunate ones will be duly notified of their selection. It is earnestly hoped that many will avail themselves of the privilege and opportunity herewith extended to contribute to medical knowledge and to the success of our next meeting.

E. W. GEHRING,
J. F. THOMPSON,
H. E. MILLIKEN,

Committee on Program.

July 12, 1915.

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No. 5

*TREATMENT OF FACIAL NEURALGIA WITH DEEP INJECTION OF ALCOHOL.

DR. W. D. WILLIAMSON, PORTLAND.

Dr. S. E. Jelliffe, in discussing the treatment of facial neuralgia in Osler's "Modern Medicine," says that injection methods have been tried for years, that in the beginning the peripheral branches were injected with various analgesic drugs, in early days with chloroform, and later, cocaine and its allies or derivatives were employed, and that, while the effects were valuable, they were temporary only. Still later osmic acid was used for injections, which set up a degenerative process, affording relief in many instances, but regeneration of the nerve took place. It remained for Schlösser, in 1903, to introduce a method of injecting alcohol into the main trunks of the fifth nerve at their points of emergence from the skull, with satisfactory results.

"The chief feature in the deep alcohol injection method is the introduction of a long, dull, cutting needle into the foramen ovale and there injecting the Gasserian ganglion. Schlösser advocated injecting the third division where it comes through the foramen ovale and the second division at the foramen rotundum in the sphenomaxillary fossa piercing the cheek behind the last molar, running up alongside of the pterygoid plate of the sphenoid to the foramen, while Ostwalt claims he can obtain the same results by going up within the mouth."

Jelliffe does not consider narcosis necessary. Alcohol, 80 per cent is used for the injection, following which relief from pain occurs though sometimes not for three to four hours, the treatment being completed if necessary by giving two or three more injections within a

*Read before the Maine Medical Association at Poland Springs, June 10, 1915.

week's time. These injections better be done after the operator has had practice on a cadaver.

Numerous observers have reported cases in which the relief extended over a year, while some cases have remained free from pain for four or five years.

Among the discomforts and dangers of the operation, especially in the use of the intraorbital methods devised by French surgeons, Jelliffe mentions edema of the posterior eye structure and hemorrhage.

In Schloesser's 123 cases of injections in the trigeminus, recurrences in the majority were noted on an average of ten months, but repeated injections delay the recurrences more and more, so that the patients may be kept immune to the pain.

Ostwald claimed that 90 per cent of cases with his injections were benefitted (the disease being probably intracranial in 10 per cent), although relapses occurred in 30 per cent of his cases within five months.

H. T. Patrick gives the technic and results of deep injections of alcohol for trifacial neuralgia in 150 cases occurring between 1906 and 1911. He does not use pure alcohol, as the strong solution hardens the tissues more, thus rendering reinjections more difficult. His solution is formed of cocaine muriat, alcohol and distilled water in the proportion of 1 c. c. of the first-named drug to 5 c. c. each of the alcohol and water. Patrick generally uses about 2 c. c. of this solution at an injection, sometimes, when injecting about at several points in search of the nerve, he uses 3 c. c., rarely more. He has made about 500 deep injections with the following results: In the case of the middle branch, about 25 per cent were failures, about 42 per cent, partially successful, and 33 per cent were good; of the inferior branch about 27 per cent were misses, 45 per cent, partial successes, and 28 per cent good. Moreover, in only about 18 per cent was the first attempt at either branch successful. Nevertheless, nearly all the patients who gave the treatment a fair trial were relieved.

Patrick says in conclusion that for very old and very feeble persons, and those with grave organic disease, he believes this to be in comparably the best treatment. (See his article for detailed descriptions, with illustrations, of the technic of injections for the superior and inferior maxillary divisions. J. A. M. A., Jan. 20, 1912.)

Julius Grinker, writing in May, 1913, on a new method of treating neuralgia of the trigeminus, which he terms "medical gassereotomy," says that this method was worked out by Dr. Haertel of Berlin, who introduces the alcohol into the Gasserian ganglion, the point of entry into the skull being through the foramen ovale. (See his article for the technic). Haertel reported good results from his method of injection — the alcohol used being 80 per cent and the quantity injected

not exceeding 1 c. c., usually being 0.5 c. c.—but Grinker adds that, because of the corneal involvement (neuroparalytic keratitis sometimes resulting) this method is to be used only in the worst cases, that is, after peripheral nerve injections have failed, or after numerous recurrences. In other words, Haertel's method should precede the cutting operations, but should follow the nerve injections.

Although Grinker gives to Haertel the credit of having originated the above method and announced it late in 1912 (see bibliography), Wilfred Harris of London published an article in the January 27, 1912 *Lancet*, in which he stated that he had been injecting alcohol through the foramen ovale into the Gasserian ganglion for trigeminal neuralgia for the past 15 months, also that he had published a paper on the subject three years before. (See our bibliography.)

T. C. H. Abelmann, in a recent (1913) article, reports gratifying results in a series of 21 cases of trigeminal neuralgia treated by superficial injections of osmic acid and alcohol combined, after having tried and discarded both the superficial and deep straight alcoholic injections. For the past three years, he has been using a 1 per cent osmic-acid solution in alcohol, to which is added about 5 per cent glycerin to keep the osmic acid in suspension.

In his 21 cases Abelmann has had only one patient return for a second injection, this being due to a faulty technic. He, therefore, regards this method of injection superior in its results to those obtained by both superficial and deep alcohol injections.

O. Kiliani in his paper on "The Present Status of Nerve Injection," published in June, 1913, cites the results in nearly 500 cases of facial neuralgia treated by him with alcohol injections. Wherever feasible, he uses peripheral injections of 80 per cent alcohol, the amount varying from 1 to 2.5 c. c. He considers peripheral injections much easier technically, also the possible danger of complications is more easily avoided, and the injection into the ganglion itself carries with it the danger of ulcer of the cornea, as in extirpation of the ganglion. During the last three years, all of his patients were relieved of pain after the injections, about 22 per cent have remained free from pain over three years (these cases including patients treated five years ago who are still apparently cured); and further, in nearly 500 cases, only two have thus far been subsequently operated on.

The majority of writers during the last two years recommend injection of the ganglion through the foramen ovale particularly for very severe and long standing cases. Drs. Haertel, of Berlin, Harris of London, Byrnes of Baltimore with several others are advocates of this method. In cases of bilateral trigeminal neuralgia injection of the ganglion possesses advantages over other methods of radical treatment

since anatomical continuity is not destroyed and the motor nucleus is not directly affected. Bilateral injections may be done by allowing sufficient time to elapse between sides.

It is a fact that pain is sometimes referred i. e., the trouble may seem to be in the inferior maxillary but injections of this alone will not always effect a cure while injecting both the inferior and superior branches at their exit from the base of the skull does bring about relief. By injecting the ganglion this is accomplished at one time. It is not always possible to accomplish all that is required at one injection. First, the needle may not be accurately placed, however good the technique for the conformation of the base of the skull varies in different individuals considerably, then the amount of fluid injected may be too small and it is better to use repeated injections with small amount than a large amount at one time.

Harris in his latest paper 1914, states that he has injected over 60 cases but does not give details of cases or summary of results. He mentions one case in which there has been no recurrence in four years. He believes excision of the gasserion ganglion should never be performed until alcohol injections have been fully tried by an experienced man.

My own personal experience is treating these cases with alcohol injections is confined to twenty cases, three were relieved completely with one injection, five with two injections, the remainder having three and four injections before getting complete relief. Three were practically failures, one obtaining some relief from one injection and refusing subsequent treatment saying she would rather endure what pain there was than stand the pain of another injection. One was a case I advised operation and I believe has since had it and the third one still undecided whether she will have further treatment or not. All my cases with one exception have had recurrences and have been relieved by more injections.

In three cases I have injected the gasserian ganglion one by accident and the other two intentionally, one required only one injection, two two injections. In the twenty cases, I have given seventy-five injections.

In no case have I observed any especially unpleasant after effects. One case there was complete closure of the eye on account of swelling. There is usually some stiffness of the jaw for a while and one case nine weeks after treatment came to me unable to open her mouth only just enough to get her teeth in but by manipulation I pulled the jaws apart and when she left the office, she could open her mouth as well as ever.

One case I wish to report that is most interesting in point of

longevity, having had the attacks for 28 years and from the fact that I have had him under observation twenty-six years. Mr. F., age 66. Twenty-six years ago I brought him to the Maine General Hospital for a resection of the inferior maxillary nerves that gave him relief for nearly a year and later he went to Philadelphia where Dr. Deaver resected the inferior maxillary nerves again giving relief for about fourteen months and still later I took him to Dr. Deaver again for operation on the Gasserian ganglion, but on account of profuse hemorrhage the complete operation was not done but the second and third divisions of the nerve were resected intra-cranially. This gave relief from pain for eighteen months, then after a considerable period of protracted pain he decided to try operation again but about that time Dr. Dana of New York came out with his treatment of massive doses of strychnine which I tried and finally broke up the pain, having brought the dose up to one-fourth grain at one injection and in two subsequent attacks I was able to abort the pain by the same treatment, but in still later attacks it failed. Then he resorted to other treatment, castor oil he thought had cured him. Finally it came on again, then he took massive doses of morphia. When he got sick of that, he had hypnotism suggested, tried and failed, finally he went to Montreal where he had the deep alcohol injections. That held him comfortable for thirteen months, then injections at Montreal that gave him relief for a year, and since that time I have had three spells of injecting him with alcohol, about one year apart, the last time only recently.

Case 2. Mrs. S., age 68; duration of disease about fifteen years. First came to me in 1912, when I gave her three deep injections of alcohol and she remained comfortable until January, 1913, only a short time, when I repeated the injections and this made her comfortable until January, 1914, when I again treated her in the same way and she has remained comfortable ever since, now a year and a half. I might go on and give the history of all my cases but this I know would be tiresome. In conclusion, I wish to state that while I have been disappointed in some cases, on the whole I feel well paid for the endeavor I have made in treating these severe neuralgias by the deep alcohol injections — further, I believe it is superior to resections of the superficial branches, does not cause any disfigurement and the average of freedom from pain is longer from the injections than from resections. The longest time any case I have heard of being free from pain is five years, the average being about eighteen months.

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DISCUSSION.

DR. WILLIAMSON—Since I got these notes together, a case has come under my observation in the Maine General Hospital, a woman suffering from extreme pain, so much so that she had been filled full of morphine for two or three weeks and was in a wretched condition on account of her neuralgia, plus the morphine. Her face was dirty; she was unable to wash it; could not get anywhere near her without her putting her hand up to push you off. After a time I succeeded in getting the face as I thought sufficiently clean so that I gave her an injection into the ganglia, and in forty-eight hours' time it was perfectly astonishing to note the change in that woman's appearance. She did, however, have some twinges of pain brought about by pretty rough usage of the nerve where it comes out of the infraorbital foramen. I believed she needed another injection, and yesterday morning I gave her the second one. This morning I saw her with a smile on her face, and she said, "Doctor, you can't produce any pain here today;" and sure enough I could not by any amount of friction anywhere on her face. She felt that she could not have the second injection done under any consideration: but, if the pain returns again, I feel sure she will come back for more treatment, because she found it so much relieved her.

THE PRESIDENT—Dr. Bainbridge has kindly consented to open the discussion of Dr. Williamson's paper.

DR. BAINBRIDGE—I felt very much flattered that Dr. Williamson should write me from Portland; but unfortunately I did not get his letter in time before I left there to look up some of my own case histories. I should like to have added some of my own histories which he has given you of his own cases, adding them to the literature to which he has made a definite contribution today. I can only say that what I should say in relation to my own cases practically echoes what he has said to you today. One of the most distressing conditions, I think, that we come in contact with, is the intractable condition of neuralgia of the face; and we are put to it very frequently for some means for relief. It seems as if there were no way to help the poor suffering individual except by a radical surgical procedure of great moment, and with considerable mortality. They go from surgeon to surgeon, and from physician to physician, for some means of relief other than the complete removal of the ganglion. I think it is timely that this subject should be brought more clearly before us, and I think Dr. Williamson has done right in bringing it here today. There are a good many cases which I have followed for a number of years, not only my own, but cases of Professor Bodine of New York, of the Polyclinic Hospital, one of my own fellow professors at that institution, to which many of you have come and gone. Dr. Bodine has had signal success, and one of his assistants, Dr. Keller, has had a large number of cases running over a considerable number of years. Both of them are very enthusiastic over a fair proportion of their cases, believing that they do the best for them by always trying this method of treatment if the ordinary medical means and usual treatment do not answer. When we have this intractable condition of neuralgia, the

injection of either alcohol alone, or some of the various other solutions, putting into the alcohol cocaine, or perhaps sometimes chloral, seems to answer very well. I am very glad that this matter has been brought to our attention. Let us keep it in mind, and when the case of neuralgia comes to us, let us weigh well whether or not the medium sized surgical operation shall be done,—that is, the cutting of the nerve, or whether we shall use the injection. I know that, although a radical surgeon, I should prefer to try the injection, and would have a distinct hope of its value from the work I have seen in the hands of others, as well as that which I have experienced in my own hands. (Applause.)

THE PRESIDENT—Now, gentlemen, the paper is open for discussion.

DR. HILLS, Westbrook—Mr. President, Dr. Williamson has given such a thorough paper that I would like to relate the history of a case which came under my observation a short time ago. It was that of a woman about fifty-one years old. She had suffered from this terrible condition for the past nine years. By the advice of one doctor she had had all of her teeth extracted. The last doctor she had before me gave her up as hopeless, and told her there was absolutely nothing that could be done for her and not to call on him again. When I first saw her she was having a very severe attack. The pain reminded me very much of the pain of labor. It would come on suddenly with severity, last a short time, and the spasm would pass off. At that time I resorted to the use of morphine. A half grain would give her relief for only about three hours. She was in a very serious and distressing condition then. Dr. Williamson kindly came to our relief, using the method he has detailed here of injecting alcohol. I did not expect much result from this or any other treatment, and it seemed only a miracle to believe that her condition could be helped. Sure enough, after the alcohol injection the pain continued just as severely for the next few days. Then the miracle man came again and injected alcohol. This time the miracle was consummated. The patient became absolutely well, and has so continued ever since. She is now getting about better than she has for many years and I can assure you that the family is very grateful. One interesting point was that after the injection of the alcohol, there was absolutely no desire for morphine, although prior thereto, she had had a large amount injected. This may possibly have some significance. Now, gentlemen, if we do not retain anything else from this valuable meeting than the value of alcohol in trifacial neuralgia, we will have done something; and if you have not had experience yourself, call on someone who has.

DR. WILLIAMSON—I do not know, Mr. President, as I wish to take up any further time with my paper. I will, however, mention one thing that has been referred to by some of the men who have spoken on the subject, and that is the amount of pain that is produced by these injections. Of course these people who have trifacial neuralgia are practically wrecks; the whole nervous mechanism is out of tune. Consequently, any thing that borders on an operative procedure, unless they are asleep under ether, narcotics, or something else, looks like a big job to them; but in spite of all this, the majority of the cases I have had to deal with, have been only too willing to submit to the extra amount of pain. One reason why ether is not given in the administration of this treatment is because, with ether, you are not altogether sure just where you are getting with your alcohol. When the patient is conscious he can aid you, because, if you get to the nerve, or near it, particularly when you throw in your alcohol, he will get a response promptly. The man of whom I spoke as having had this so many years, every time I have given him an injection and have got

to the spot, he has said: "Doctor, that feels good, push it!" He knows that he gets relief from these injections. He says that he came from a hardy race; otherwise he would have been dead years ago. He says that if he can have one or two injections a year, he is willing to have them, pay the bill, and suffer the pain.

*THE SPACE SENSE AND THE LABYRINTH.

BY DR. E. M. HOLMES, BOSTON, MASS.

Physiologically, man in common with most animals, possesses a sense of position in space. When in perfect order, under normal conditions, this is the least recognized of the generally known senses. In fact, unless subconsciously, we are not aware of its existence, until for some reason, one or more of the organs, which aid in its accomplishment, become injured by accident or disease.

The labyrinth of the ear is one of the important organs in an association which makes possible and controls our space sense, and this organ is the one which we shall more thoroughly consider at this time. It will be necessary to deal with the other members of the association as they directly participate with the labyrinth, and at times vicariously substitute for the labyrinth, in performing its co-ordinating functions. In this association are the eyes, the skeleton (the joints and various muscles), the viscera, and the network of nerves and ganglia communicating with these organs and with the higher centers. The great central station, receiving all of the centripetal impulses to maintain equilibrium, is the cerebellum, and this may be considered the center for the static labyrinth. It receives impulses from the static labyrinth, sensory impulses from the muscles and joints, and visual impulses from the eyes. It sends out motor impulses to all of the muscles which maintain the normal poise of the body. Some of the movements engaged in maintaining equilibrium are more or less voluntary and must come from the higher centers in the cerebrum, but even these impulses must pass through the cerebellum. The impulses from the joints and muscles pass to the spinal cord through the posterior nerve roots, the fibres terminating about the cells in Clarks and Stillings columns. From these cells fibres pass up in Flechsig's and Gowers columns to the central nuclei of the cerebellum and finally reach the

*Read before the Eye and Ear Section, October 12, 1915, at Portland, Maine.

cerebellar cortex. The impulses from the vestibule, the muscles and joints finally reach Purkinje's cells in the cerebellar cortex.

In the production of nystagmus the labyrinthine impulses pass through the vestibular nerve to the ventro-caudal nucleus of Deiter and through the posterior fasciculi the pons and mid-brain, terminating about the nuclei of the third, fourth and eighth cranial nerves and through these nerves to the ocular muscles.

The space sense in man, although evident in the very young, is in a great measure an acquired sense and varies to quite a marked degree in individuals. In athletes, especially jugglers, and artizans, whose calling demands constant efforts at balancing, we find it in its most perfected degree. After injury or disease of one or more of the members of this complicated system, the remaining members gradually acquire the ability to substitute for the injured, and there results a more or less perfect compensation. In cases of real or suspected injury to a unit of this system, it is of great importance to always keep in mind this compensatory factor. It is also quite important not to forget the varying degrees of ability to maintain a fair measure of equilibrium under various stimulating or depressing influences. The immediate effort of the ocular muscles to compensate for any error of action or loss of function of the labyrinth, produces the varying degrees of nystagmus, which gives one of the most important signs by which we can detect and diagnose these conditions.

Centripetal impulses, generated by the ordinary contact with associated external influences, produce, under normal conditions, no conscious impressions to the individual nor any manifestations discernable to an observer. These stimuli may however be sufficiently intense to produce in the normal individual all the symptoms of unbalanced equilibrium, with many of the observable manifestations. These external stimuli when voluntarily applied in sufficient intensity, enable us to test the function of the labyrinth, and to differentiate between lesions of the labyrinth and the cerebellum, and frequently to tell the degree of involvement of the labyrinth. The more usual and important stimuli diagnostically applied are cold water in the auditory canal turning movement in line of the various semi-circular canals, and a series of tests to demonstrate the co-ordinating ability.

Nearly fifty years ago, one of the first papers appeared describing a temporary nystagmus and giddiness and nausea following a douching of the auditory canal. This was at first thought to be due to pressure upon the stapes. It has now been proven that only very cold or very warm water will produce this condition and that with cold water the symptoms and signs are all those which are produced when the endolymph of the canal flows in the direction it would take by the chilling

of that portion of the tube. Sitting or standing with the head erect in the normal individual, cold water flowing into the external canal produces in a few moments a marked vertigo. There begins a nystagmus, rotary and usually horizontal, with the quick movement away from the ear stimulated, and at times nausea and vomiting. This is increased when the subject looks away from the syringed ear. The body seems to whirl from the stimulated ear and this feeling is more pronounced when the eyes are closed. If the subject stands with head erect and eyes closed, there will be a tendency to fall toward the stimulated side. If with head erect the right ear is chilled by cold water, there results a rotary nystagmus to the left. If the head is tilted backward 60 degrees the external canal is brought to a nearly vertical position and there results a marked horizontal nystagmus. If the head is tilted forward 30 degrees or backward 120 degrees, this nystagmus immediately stops. With the head thrown back 60 degrees and 45 degrees toward the ear which is chilled, if no nystagmus develops then the external canal is non-functioning. If now the head is bowed 30 degrees and a rotary nystagmus results, the superior posterior canals are functioning. With the right ear chilled and a rotary nystagmus established if the right arm is extended forward horizontally it deviates downward. The left arm trying to execute the same movement deviates upward. If the head is now inclined forward about 90 degrees, both arms will deviate to the right, and if it is carried backward 90 degrees, both arms deviate to the left. With the head 90 degrees to right, both arms deviate upward. In inflammation of the labyrinth there is often a spontaneous nystagmus. It is usually the horizontal rotary form with quick component away from the affected ear. It may be found only in certain positions of the eyes with the head erect. When vertigo is present the patient tends to fall toward the side of the diseased ear. The symptoms are relieved by looking toward the diseased side. Patients for this reason usually lie upon the sound ear.

After a while the other space sense organs vicariously substitute for the diseased labyrinth and the signs become much less marked, and it is much more difficult to diagnose the existing conditions. Von Stein has devised a series of tests to demonstrate slight loss of space sense which may be of considerable service in late cases. The tests are, standing on one foot, standing on toes with feet together, standing still with feet close together, standing on inclined plane on which the obliquity can be changed, hopping backward and forward on toes with feet together, walking backward and forward on level, hopping on one foot backward and forward and turning on one foot to right and to left. In all these tests the eyes are to be closed. The tests of Von Stein are not by any means infallible as one cannot possibly say

that the labyrinth or the skeletal sense is at fault. There are many normal individuals who execute these stunts poorly.

Reaction movements of the body depend upon the canal stimulated and also upon the position of the head. In cases of spontaneous nystagmus, if the quick component is to the left, the patient will incline to fall to the right, if the head is erect and he is facing forward with the eyes closed. If the head is turned 90 degrees to the left, he will fall forward; if it is turned 90 degrees to the right, he will fall backward. If the nystagmus is to the right, and the head is turned 90 degrees to the right, he will fall forward, and if turned 90 degrees to the left, he will fall backward.

In cerebellar diseases with pressure from abscess or new growth, there may be nystagmus, vertigo, nausea, similar to that found in labyrinthine disease. In these conditions there is almost always constant severe pain in the head, and where there is no associate labyrinthine disease, the signs are not changed by moving the head. The nystagmus remains constant and unchanged in all positions. The vertigo is usually not changed by any movement of the head.

Though we easily learn the various tests and the expected reactions in disease of the sense space organs, it is a study of much greater importance than is usually recognized by the profession. It requires much practice and experience to say in many cases whether a spontaneous nystagmus is really due to some pathological condition, or is within physiological limits. I have found that patients with lively nerve reflexes usually show also more lively reflexes in their co-ordinating organs. Individuals of the neurotic type also are liable to react more easily, and to a more marked degree. In partial destruction of the external semi-circular canal, we often get varying degrees of reaction. Again we occasionally get no response from cold water in the auditory canal when there is apparently a perfect labyrinth.

It has recently been found that the whole cerebellum can be destroyed without affecting the quick component of the nystagmus or the pointing deviation when the labyrinth is stimulated. This would lead us to believe that cerebellar disease may exist without causing change in labyrinthine reactions until there is sufficient pressure to affect or destroy the nerve tracts engaged in stated impressions.

Although with our present knowledge and technic, we have made much progress in dealing with labyrinth and cerebellar diseases, our observations are not infallible; and every suspected case should be given all the tests at our command.

The one important thing from a clinical standpoint is to carefully consider the results of the combined tests, and not to be too sure of individual findings.

Editorial Comment.

Examiners for the Blind.

Our attention has again been called to Chapter 109, of the Public Laws passed by the 77th Legislature providing a benefit of \$200 per annum for all persons over the age of twenty-one years, who are declared to be blind, providing they are not charges of charitable or penal institutions in the State, or having an income of more than \$300 per annum, or able to earn the same, and providing that they have been residents of the State of Maine for a period of not less than ten years, and of their respective county not less than one year.

The bill further provides for the method of procedure of an applicant, and the appointment of a regular practicing physician whose official title should be examiner of the blind, and shall have an office in some convenient place in said city, town or plantation during the first week of June and December of each year to examine all applicants for said benefits referred to him by municipal officers, etc.

It further provides that such examiners shall be paid two dollars for each examination.

The medical profession has always stood for the passage of any act which would care for the unfortunates, and in fact no body of men is in closer touch with the sufferings of humanity, and the deplorable end results as the members of the medical profession. They are not only giving liberally of their time, but are contributing largely to the carrying on of the work of all charitable institutions.

As we review the provisions of this bill, the first thing that impresses us strongly is the difficulty which the examiner will experience in determining whether or not the applicant is feigning blindness or is worthy of State aid. It is no easy task for an experienced oculist to determine this point, and the majority of cases coming in for examination cannot be determined in one, two or even three examinations, and yet the State provides for one examination with a modest fee of two dollars.

The writer believes that if the provisions of this bill left the burden of the examination on the applicant, that practically every oculist who finds a patient coming in under the provision of this bill, would gladly make out the necessary papers, if such a patient applies for this benefit, and make no charge for his time. This would insure that the objects of the bill would be more nearly carried out, and leaves the only other alternative which would be to pay an oculist sufficient value for taking up this work.

This is only one of the many issues which have come before the medical profession, but is certainly worthy of consideration at this time.

Public Health Service Discovers Cause and Cure of Pellagra. Pellagra Caused by Insufficient Proteid Diet.

Announcement was made at the Treasury Department today that as a result of continued research and experiments of the Public Health Service, both the cause and the cure of pellagra have been discovered, and that the spread of this dread malady, which has been increasing in the United States at a terrific rate during the past few years, may now be checked and eventually eradicated. Assistant Secretary Newton, in charge of the Public Health Service, expressed great interest in the discovery and regards it as one of the most important achievements of medical science in recent years.

Pellagra has been increasing alarmingly throughout the United States during the last eight years, and it is estimated that 75,000 cases of the disease will have occurred in the United States in 1915, and of this number at least 7,500 will have died before the end of the year. In many sections only tuberculosis and pneumonia exceed it as a cause of death.

The final epoch-making experiment of the Public Health Service was carried out at the farm of the Mississippi State Penitentiary about eight miles east of Jackson, Miss., and together with the previous work of the Service completes the chain in the prevention and cure of the disease. The work at the Mississippi Farm has been in charge of Surgeon Joseph Goldberger and Assistant Surgeon G. A. Wheeler of the United States Public Health Service. The farm consists of 3,200 acres in the center of which is the convict camp. The final experiment was undertaken for the purpose of testing the possibility of producing pellagra in healthy human white adult males by a restricted, one-sided, mainly carbo-hydrate (cereal) diet. Of eleven convicts who volunteered for this experiment, six developed a typical dermatitis and mild nervous gastro-intestinal symptoms.

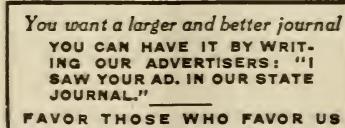
Experts, including Dr. E. H. Galloway, the Secretary of the Mississippi State Board of Health, Dr. Nolan Stewart, formerly Superintendent of the Mississippi State Hospital for the Insane at Jackson, Dr. Marcus Hause, Professor of Dermatology, Medical College of the University of Tennessee, Memphis, Tenn., and Dr. Martin R. Engman, Professor of Dermatology in the Washington Medical School, St. Louis, Mo., declare that the disease which was produced was true pellagra.

Prior to the commencement of these experiments no history could be found of the occurrence of pellagra on the penitentiary farm.

On this farm are 75 or 80 convicts. Governor Earl Brewer offered to pardon twelve of the convicts who would volunteer for the experiment. They were assured that they would receive proper care throughout the experiment, and treatment should it be necessary. The diet given was bountiful and more than sufficient to sustain life. It differed from that given the other convicts merely in the absence of meats, milk, eggs, beans, peas, and similar proteid foods. In every other particular the convicts selected for the experiment were treated exactly as were the remaining convicts. They had the same routine work and discipline, the same periods of recreation and the same water to drink. Their quarters were better than those of the other convicts. The diet given them consisted of biscuits, fried mush, grits and brown gravy, syrup, corn bread, cabbage, sweet potatoes, rice, collards and coffee with sugar. All components of the dietary were of the best quality and were properly cooked. As a preliminary, and to determine if the convicts were afflicted with any other disease, they were kept under observation from February 4th to April 9th, two and a half months, on which date the one-sided diet was begun.

Although the occurrence of nervous symptoms and gastro-intestinal disturbances was noted early, it was not until September 12th, or about five months after the beginning of the restricted diet, that the skin symptoms so characteristic of pellagra began to develop. These symptoms are considered as typical, every precaution being taken to make sure that they were not caused by any other disease. The convicts upon whom the experiment was being made, as well as twenty other convicts who were selected as controls, were kept under continuous medical surveillance. No cases of pellagra developed in camp excepting among those men who were on the restricted diet. The experimenters have therefore drawn the conclusion that pellagra has been caused in at least six of the eleven volunteers as a result of the one-sided diet on which they subsisted.

On the basis of this discovery, the States of Mississippi, Louisiana and Florida have laid their propaganda through their respective boards of health for the eradication of the disease.—*From Health News.*



THE STATE SANITORIA.

Following our editorial on the State sanatoriums, which appeared in the October issue of the Journal, we received a communication from the Chairman of the Board of Trustees of Tuberculosis Sanitoriums, stating their position in regard to the work to be carried on. We quote him as follows:

Under the law, we are obliged to accept all cases of tuberculosis whatever stage they may be, so that it has seemed advisable to the Board of Trustees to use the Fairfield Institution as a receiving station, all cases being admitted there. After any of these cases become ambulatory, they will be sent to Hebron to continue the treatment, except in the case of children and perhaps a few of those whose homes are near Fairfield.

By conducting Fairfield on the basis of bed patients, we believe we can give the treatment for less money than in any other way and on the whole, hope that it will work out to better advantage for all concerned. In some way the impression has gone forth that Fairfield will be used wholly for advanced cases which you will readily see is not so. We have already established an out-door school for children at Fairfield and hope soon to have a separate dormitory for them. All applicants for admission are to be made to my office and proper blanks and instructions will be sent promptly. I am enclosing a blank that we shall use and trust that it meets with your approval. By using such a blank we thought we might get some information before the medical profession that would serve as a helpful reminder. As soon as we are well under way, we propose to have a report of the medical examination sent to the patients' physician, also a report of his condition when the patient returns to his care, so that he may know something of the patient's progress while under treatment.

It has been suggested that the Board of Trustees propose to pauperize patients who were unable to pay and some comment has appeared to that effect in the public press. That is not our intent at all. Inquiry was made at my office as to what our policy would be in regard to State patients and I replied that we should call on the State pauper funds in these cases, meaning that patients who were already State paupers, and this too applied to town paupers, should be paid for from the State pauper fund or the town funds. This you see will not tend to pauperize any one and applies only to those who are already State or town paupers. Will add that we have made very few changes in the organization of either institution.

Dr. Pettengill, a native of this State, and with considerable experience in tubercular work in Massachusetts and Rhode Island has succeeded Dr. Nichols at Hebron and Dr. Shaw, who was first assistant at Hebron, has succeeded me at Fairfield.

The blank referred to in Dr. Hardy's letter is very complete not

only insuring a complete history and physical examination, but contains many useful hints to the general practitioner in regard to this class of cases.

We would suggest to those interested in this work, that they write Dr. T. E. Hardy of Waterville for an examination blank, and have it on hand in case it should be required. This is one of the most important steps that the State of Maine is undertaking along the line of conservation of life, and we feel sure that the medical profession will take an active interest in the affairs of the Maine State Sanatoriums.

IMPORTANT ANNOUNCEMENT.

It is or should be an honor to present a paper before the Maine Medical Association. The Committee on Program for the ensuing year, conscious of this fact, feel strongly that only those of merit deserve a place on the program; and proposes to institute a somewhat different method for their selection from that which has hitherto prevailed,—competition.

With the single exception of the annual orator, persons will be assigned to the program whose papers conform most closely to certain requirements which the committee regards as elemental.

First.—The topic dealt with should be timely.

Second.—It should represent the experience of the writers so far as may be, or it should be a first hand account of a personal observation of the work of others.

Third.—It should, if possible, be an addition to the summary of medical knowledge.

Fourth.—Form will not be accepted for substance.

It is desirable that all papers be in the hands of the chairman of the Committee not later than March 1, 1916; and that each essayist submit the names of two members of the profession who are competent and *who have agreed* to open the discussion upon his particular topic. Bear in mind, too, the time limit of twenty minutes for all readers and five minutes for subsequent speakers.

This competition is open to all members of the State Association, irrespective of how recently one may have read. Its object is the presentation at the next session of papers of worth and, incidentally, to provide a stimulus for better and original work.

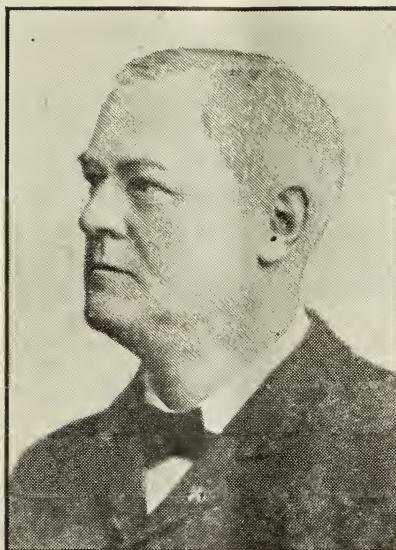
The best eight or ten papers in the judgment of the committee will make up the program, and the fortunate ones will be duly notified of their selection. It is earnestly hoped that many will avail themselves of the privilege and opportunity herewith extended to contribute to medical knowledge and to the success of our next meeting.

E. W. GEHRING,
J. F. THOMPSON,
H. E. MILLIKEN,

Committee on Program.

July 12, 1915.

Necrology.



CAT.

ELLERY MAY WING.

Dr. Wing, in the midst of apparent health was attacked with influenza on Tuesday, March 23, 1915, and after much suffering, died of supervening acute nephritis on Saturday the 3rd of April at his home in North Anson. Tireless and systematic attention to his labors had so weakened his system, that he failed to withstand the shock of the influenza.

He was the son of Lewis Morrison and Lucretia Foss Wing and was born in Wayne, April 24, 1856, educated in the village schools as well as at Hebron Academy and the Waterville Classical Institute, and then went into the drug business at Livermore Falls for two years. He then followed the study of medicine and obtained his degree at the Medical School of Maine in 1879. After practising at North New Portland for two years, he moved to North Anson, where he soon obtained a large medical and surgical practice. Later on, he was lured to the West and practiced four years in Tacoma, Washington. The longing for Maine, was, however, too strong to be resisted and about 1889 he settled once more in North Anson and remained there the rest of his life.

About this time also, he studied surgery in New York and later on made a visit to the Rochester Clinic, and thus equipped for emer-

gencies of all sorts, he labored diligently so long as was given to him to work. He carried on an extensive consultation practice, belonged to the Staff of the Somerset Hospital, was an active member in many medical societies, and a censor in our own Association. His superior knowledge of medicine and tender consideration for his patients created a constant demand for his services.

A glance at his portrait shows a man of firm and determined character, free from obstinacy, and ready for kind deeds. He possessed a marked love for children, and they all adored him. He was twice married; first to Miss Laura Thompson, of Livermore Falls, who died in 1913 leaving a surviving son, and in March, 1915, a few weeks before his unexpected death, he married Miss Nellie Emery Porter of North Anson by whom he is survived.

J. A. S.



DR. FRED MILTON SMITH.

Whn Dr. "Fred" Smith as everybody called him, finished his student year at the Maine General Hospital, and settled in Portland amidst a crowd of competent and competing physicians, few of his friends dared to believe that in taking so rash a step he would be successful. Successful he was, however, yet at his own cost. In the few years of his brief career he obtained more than his share of paying practice in various parts of the city. He had the skill to back his determination, his good luck with his patients was noteworthy, and he was the possessor of a genial, happy, attractive way which brought to his patients that sense of absolute trust and satisfaction with his advice and treatment, which is hard to define and remains the envy of many

an on-looking competitor. But clouds arose about him, their shadow fell across his path, he worked too hard to drive them aside, his well balanced capacity for work deserted him, he fell by the wayside, and died suddenly after a career which may safely be called extraordinary in the medical annals of Portland.

A son of Henry and Susan Brown Smith, Frederick Milton Smith was born in Portland, June 1, 1879, passed through the public schools of the city, and the private school of Rev. Thomas Calvert, began the study of medicine in 1901, and received his medical degree at the Medical School of Maine in 1905. He then from the results of competitive examination obtained a position as interne in the Maine General Hospital, in which he served a year, exhibiting exceeding interest in his work in all the branches of medicine and surgery. Immediately after leaving the Hospital in 1906, he opened an office, met with success, and married Miss Martha Gragg Vose of Portland, who with a young son survives him.

"Fred" Smith was a genial, kindly man, yet of indomitable will, and depth of feeling combined with a fixed determination to succeed in medical life. He belonged to several medical societies, did his share of the work appertaining to membership, and was one of the best known of the younger set of physicians. The story of his life is this; that he worked too hard; kept the candle burning at both ends; broke down; returned to work all too soon; and on making his way home from a consultation in a motor car, died from heart failure, without a previous warning of his weakened condition.

J. A. S.

County News and Notes.

CUMBERLAND.

PORLTAND MEDICAL CLUB.

The annual meeting of the Portland Medical Club was held at Congress Square Hotel, Dec. 2nd, 1915. Dr. Jack Hawley Harris and Dr. Elmer King were elected to membership. The following Officers and Essayists for the ensuing year were elected:

President, Dr. Frank Y. Gilbert.

First Vice President, Dr. Philip P. Thompson.

Second Vice President, Dr. Edwin W. Gehring.

Secretary and Treasurer, Dr. Carl M. Robinson.

Essayists for Meetings in 1916

January, Dr. Harold V. Bickmore.	June, Field Day.
February, Dr. J. G. S. Jamieson.	September, Dr. W. C. Whitmore.
March, Dr. R. B. Moore.	October, Dr. H. P. Merrill.
April, Dr. J. A. Spalding.	November, Dr. W. L. Cousins.
May, Dr. T. O. Vanamee.	

ORDER OF EXERCISES AT ANNUAL MEETING.

Business Meeting.

Election of Officers for 1917.

BANQUET.

Address by the Retiring President.

The Work of the Club for the Year. By the Secretary.

Annual Oration: Dr. Edwin W. Gehring.

Remarks: By the President elect.

Poet: Dr. F. W. Searle.

Dr. Fred Webster was appointed to represent the Portland Medical Club on the Milk Commission of the Portland Board of Health.

Adjournment to dining room at 8.20 P. M., where the members enjoyed the annual banquet. An address from the retiring president, remarks from Dr. Spalding and the annual report of Secretary followed the dinner. The Annual Oration by Dr. Chauncey Rae Burr was a very interesting and instructive paper on Cancer.

BENJAMIN FOSTER, *Secretary.*

KENNEBEC.

The quarterly meeting of the Kennebec County Medical Association was held at the Augusta House, Augusta, Maine, Thursday, November 4, 1915. It was an unusually well attended meeting. Dr. Richard F. Chase of Portland gave a useful and entertaining talk on "Modern Diagnoses of Gastro-Intestinal Diseases."

C. J. BEACH, *Secretary.*

OXFORD

The 78th quarterly meeting was held at Rumford on the afternoon and evening of September 27th.

The program was somewhat different from the usual, and greater interest was shown both in enthusiasm and in the number present.

The meeting was opened at Dr. McCarty's hospital where Dr. Walter E. Tobie, professor of anatomy in The Bowdoin Medical School, did an operation for the cure of an inguinal hernia, explaining each step and demonstrating the anatomical relations.

Following the operation, several patients with their clinical histories were presented by Drs. Nile, Hanlon, Leslie, Rowe, Tobie, McCarty and Bisbee. Eight cases were brought before the meeting for examination and discussion.

An excellent banquet was served at Hotel Rumford at 6 o'clock, after which a business meeting was called to order by President Tibbets and the applications for membership of Drs. Harold W. Stanwood and Charlotte F. Hammond were unanimously accepted by the society. Dr. Walter E. Tobie of Portland then read a clear cut and practical paper entitled "Primary Repairs of the Perineum." This was discussed thoroughly and by most of the doctors present.

Dr. E. E. Holt was then called on as president of the Maine Medical Association and he entertained the members in an address both unique and instructive.

Among the members present were Bisbee, Nile, Wheet, Stanwood, A. L., McCarty, Rowe, Greene, Stanwood, H. W., of Rumford, Binford of Mexico, Pease of Dixfield, Leslie of Andover, Bicknell of

Canton, Wheeler of West Paris, Wight and Tibbetts of Bethel, Farris of Oxford, Bartlett and Trufant of Norway and Stewart of South Paris.

Visitors: President Holt of Portland, Councillor Pratt of Farmington, York of Wilton, Tobie of Portland, Byron of Rumford, Hanlon of Mexico, Edwards of Bethel.

DR. STEWART.

PENOBSBOT.

The sixty-second annual meeting of the Penobscot County Medical Association was held at the Bangor House, Bangor, Maine, on Tuesday evening, November 16, 1915, at 7.30 P. M.

The meeting was called to order by Dr. B. L. Bryant, President.

The following members were present: Dr. B. L. Bryant, Dr. E. B. Sanger, Dr. J. B. Thompson, Dr. P. T. Haskell, Dr. W. H. Simmons, Dr. H. J. Milliken, Dr. E. E. Brown, Dr. Wm. Ellingwood, Dr. Lester Adams, Dr. R. N. Knowles, Dr. H. L. Robinson, Dr. G. M. Woodcock, Dr. H. F. Quinn, Dr. C. H. Burgess, Dr. H. M. Chapman, Dr. H. H. Crane, Dr. W. E. Whitney, Dr. H. T. Clough, Dr. Wm. C. Mason, Dr. Daniel McCann, Dr. Wm. P. McNally, Dr. J. F. Starrett, all of Bangor, Maine; Dr. J. P. Russell, of South Brewer, Maine; Dr. G. A. Phillips, of Bar Harbor, Maine; Dr. C. M. Thomas, of Brewer, Maine; Dr. G. L. Landry, of Old Town, Maine; Dr. S. N. Marsh, of West Enfield, Maine; Dr. E. A. Porter and Dr. L. H. Blanchard, of Pittsfield, Maine, and Dr. F. D. Weymouth, of Charleston, Maine.

The report of the last meeting was read and approved.

Several applications were presented to be voted upon, but were postponed until the next meeting.

The Secretary's report for the year showed that eight meetings had been held; that the attendance averaged about thirty; that fifteen new members had been taken in; that the present membership is ninety-three; and that papers upon a variety of subjects had been read by the following: Dr. Joslin, of Boston; Dr. Chase and Dr. C. H. Hunt, of Portland; Dr. Landry, of Old Town; Dr. William C. Mason, Dr. Lester Adams, and Charles H. Reid, Esq., of Bangor.

The Treasurer's report showed a balance on hand of \$317.29, with all bills paid.

The election of officers resulted as follows: President, Dr. E. B. Sanger; Vice President, Dr. J. B. Thompson; Secretary and Treasurer, Dr. H. J. Milliken; Censor, Dr. D. A. Robinson; Delegate to the Maine Medical Association, Dr. B. L. Bryant.

After supper, Dr. Bryant presented a highly interesting paper upon Chronic Gastric Lesions, dwelling particularly upon Gastric and Duodenal Ulcer and Cancer. The doctor reported a series of eight cases which he had treated in the Eastern Maine General Hospital, and X-ray plates which had been taken by Mr. Klatte, were passed around. Several of these cases had been operated upon by Dr. W. H. Simmons, who opened the discussion.

Our next meeting will be held on Tuesday evening, December 21, 1915, at which time, Dr. J. T. Bottomley of Boston, Mass., will read a paper upon the significance of Jaundice.

H. J. MILLIKEN, *County Editor.*

Book Reviews.

Diagnostic and Therapeutic Technic.

By Albert S. Morrow, M. D., Clinical Professor of Surgery, New York Polyclinic. Second edition, thoroughly revised. Octavo of 834 pages, with 860 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$5.00 net; half morocco, \$6.50.

This is a very useful and practical book not only for the general practitioner but for men doing special work in the different divisions of medicine and surgery. The subject of anaesthesia, both general and local, is ably discussed and valuable methods described for the diagnosis and treatment of general medical and surgical diseases as well as those of the ear, nose, throat and of the male and female organs of generation.

A Synopsis of Medical Treatment.

By George C. Shattuck, M. D., Assistant Physician to the Massachusetts General Hospital. Second edition, revised and enlarged. Price \$1.25. W. M. Leonard, Boston, Publisher.

This book is a splendid synopsis of treatment compiled from experiences in one of our large hospitals and also from private practice. The work is concise and the methods suggested proven. In a day when drug therapy is rapidly changing, the brief synopsis of drugs in which we may still have faith, is of particular value.

Treatment of Fractures.

By Charles L. Scudder, M. D., Surgeon to the Massachusetts General Hospital, Associate in Surgery at the Harvard Medical School. Eighth edition, revised and enlarged. Octavo volume of 734 pages, with 1,057 original illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Polished buckram, \$6.00 net; half morocco, \$7.50 net.

This new edition of a work which for years has been a standard authority for the treatment of fractures, has been revised and all the recent advances in treatment which have been thoroughly tried out and found to be of permanent practical value, have been added. Of special importance are the chapters on operative treatment and the use of autogenous bone grafts in cases of delayed union and non-union.

Regulation of the Practice of Medicine.

Compiled by the Medico-Legal Bureau of the American Medical Association, 535 North Dearborn Street, Chicago. Bound in legal buckram with stamped leather labels. Pp. 504. Sixe 6½ x 9½. Price \$6.00, postage prepaid.

This book, just issued by the American Medical Association press, is the only complete compend in print on the regulation of the practice of medicine. It includes:

1. A list of all Supreme Court decisions, both State and Federal, on this subject, arranged chronologically by States, with reference to the Court Reports in which each decision may be found. This list alone, to the State Board Secretary or prosecuting attorney is worth many times the price of the book;
2. Abstracts of 267 of the most important decisions, arranged chronologically by States.
3. A digest of the subject, considered topically with copious references to ruling cases under each head.
4. An analytical index, giving references to appropriate sections on each topic.

NOTICE.

The next examination for appointment in the Medical Corps of the Navy will be held on or about February 23, 1916, at Washington, D. C., Boston, Mass., New York, N. Y., Philadelphia, Pa., Norfolk, Va., Charleston, S. C., Great Lakes (Chicago), Ill., Mare Island, Cal., and Puget Sound, Wash.

Applicants must be citizens of the United States and must submit satisfactory evidence of preliminary education and medical education.

The first stage of the examination is for appointment as assistant surgeon in the Medical Reserve Corps, and embraces the following subjects: (a) anatomy, (b) physiology, (c) *materia medica* and therapeutics, (d) general medicine, (e) general surgery, (f) obstetrics.

The successful candidate then attends the course of instruction at the Naval Medical School, which will begin on or about October 1, 1916. During this course he receives a salary of \$2,000 per annum with allowances for quarters, heat and light, and at the end of the course, if he successfully passes an examination in the subjects taught in the school, he is commissioned an assistant surgeon in the navy to fill a vacancy.

Full information with regard to the physical and professional examinations, with instructions how to submit formal application, may be obtained by addressing the Surgeon General of the Navy, Navy Department, Washington, D. C.

New and Non-Official Remedies.

During November, the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Antiseptic Supply Co.:	Merck and Co.:—Continued
Iodoapplicators.	Ethyl Salicylate, Merck.
Iodoapplicators, special.	Fluorescein, Merck.
Iodosticks.	Formic Acid, Merck.
The Bayer Company, Inc.:	Mercury Cyanide, Merck.
Iodothyrine Tablets, 3 grs.	Mercury and Potassium Iodide, Merck.
Theocin-Sodium-Acetate Tablets, 1½ grs.	Mercury Succinimide, eMrck.
Thyresol Pearls, 5 grs.	Morphine Meconate, eMrck.
Merck and Co.:	Osmic Acid, Merck.
Agar Agar Powder, Merck.	Sodium Oleate, Merck.
Agar Agar Shreds, Merck.	Sodium Peroxide, Merck.
Berberine Hydrochloride, Merck.	Thiosinamine, Merck.
Calcium Peroxide, Merck.	Urea, Merck.
H. K. Mulford Co.:	Zinc Peroxide, Merck.
Ampuls Emetine Hydrochloride 0.005 Gm.	
Ampuls Emetine Hydrochloride 0.02 Gm.	
Ampuls Emetine Hydrochloride 0.04 Gm.	
Ampuls Mercury Succinimide 0.1 Gm.	
Ampuls Pituitary Extract ½ Cc.	
Ampuls Quinine Dihydrochloride 0.24 Gm.	
Ampuls Quinine Dihydrochloride 0.5 Gm.	
Ampuls Quinine and Urea Hydrochloride 1%.	
Ampuls Sodium Cacodylate 0.1 Gm.	
Ampuls Sodium Cacodylate 0.2 Gm.	
Ampuls Sodium Cacodylate 0.5 Gm.	
Ampuls Sodium Cacodylate 1 Gm.	
Purified Tricresol, Mulford.	
Scarlatinal Strepto-Serobacterin (Therapeutic).	
Powers-Weightman-Rosengarten Co.:	
Calcium Peroxide, P. W. R.	
Magnesium Peroxide, P. W. R.	
Sodium Perborate, P. W. R.	
Sodium Peroxide, P. W. R.	
Strontium Peroxide, P. W. R.	
Zinc Peroxide, P. W. R.	
Swans-Myers Co.:	
Swan's Staphylococcus Bacterin (No. 37).	
Swan's Streptococcus Bacterin (No. 43).	
Swan's Typhoid Bacterin (No. 44) (Prophylactic).	

Since publication of New and Non-official Remedies, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Non-official Remedies."

Bismuth Tribromphenate.—Basic bismuth tribromphenate. It is claimed to be a non-irritant and non-toxic antiseptic and an odorless and efficient substitute for iodoform. It is said to be of value in gastrointestinal catarrh, proctitis, dysentery, diarrheas, etc. Merck and Co., New York (Jour. A. M. A., Nov. 13, 1915, p. 1731).

Butyl-Chloral Hydrate, Merck.—A non-proprietary brand of butylchloral hydrate admitted to New and Non-official Remedies. Merck and Co., New York. (Jour. A. M. A., Nov. 13, 1915, p. 1731.)

Ethyl Bromide, Merck.—A non-proprietary brand of ethylbromide admitted to New and Non-official Remedies. Merck and Co., New York.

Homatropine Hydrochloride, Merck.—A non-proprietary brand of homatropine hydrochloride admitted to New and Non-official Remedies. Merck and Co., New York.

Sodium Cacodylate, Merck.—A non-proprietary brand of sodium cacodylate admitted to New and Non-official Remedies. Merck and Co., New York.

Iodothyrene Tablets, 3 grains.—Each tablet contains iodothyrene 3 grains. The Bayer Company, Inc., New York.

Thyresol Pearls, 5 grains.—Each pearl contains thyresol 5 grains. The Bayer Company, Inc., New York.

Theocin-Sodium Acetate Tablets $1\frac{1}{2}$ grains.—Each tablet contains theocin-sodium acetate 0.1 Gm. The Bayer Company, Inc., New York.

Ampuls Emetine Hydrochlorice, Mulford $1/12$ grain.—Each ampule contains emetine hydrochloride 0.005 Gm. H. K. Mulford Co., Philadelphia.

Ampuls Emetine Hydrochloride, Mulford $\frac{1}{3}$ grain.—Each ampule contains emetine hydrochloride 0.02 Gm. H. K. Mulford Co., Philadelphia.

Ampuls Emetine Hydrochloride, Mulford, $\frac{2}{3}$ grain.—Each ampule contains emetine hydrochloride 0.04 Gm. H. K. Mulford Co., Philadelphia.

Ampuls Sodium Cacodylate, Mulford, $1\frac{1}{2}$ grains. Each ampule contains sodium cacodylate 0.1 Gm. H. K. Mulford Co., Philadelphia.

Ampuls Sodium Cacodylate, Mulford, 3 grains.—Each ampule contains sodium cacodylate 0.2 Gm. H. K. Mulford Co., Philadelphia.

Ampuls Quinine and Urea Hydrochloride, 1%, Mulford.—Each ampule contains 5 Cc. of a sterile 1 per cent solution of quinine and urea hydrochloride. H. K. Mulford Co., Philadelphia.

Ampuls Mercury Succinimide, Mulford, $\frac{1}{6}$ grain.—Each ampule contains mercury succinimide 0.01 Gm. H. K. Mulford Co., Philadelphia.

Calcium Peroxide, P. W. R.—A non-proprietary preparation of calcium peroxide admitted to New and Non-official Remedies. Powers-Weightman-Rosengarten Co., Philadelphia.

Magnesium Peroxide, P. W. R.—A non-proprietary preparation of magnesium peroxide admitted to New and Non-official Remedies. Powers - Weightman - Rosengarten Co., Philadelphia.

Sodium Peroxide, P. W. R.—A non-proprietary preparation of sodium peroxide admitted to New and Non-official Remedies. Powers-Weightman-Rosengarten Co., Philadelphia.

Strontium Peroxide, P. W. R.—A non-proprietary preparation of strontium peroxide admitted to New and Non-official Remedies. Powers-Weightman-Rosengarten Co., Philadelphia.

Zinc Peroxide, P. W. R.—A non-proprietary preparation of zinc peroxide admitted to New and Non-official Remedies. Powers-Weightman-Rosengarten Co., Philadelphia.

Sodium Perborate, P. W. R.—A non-proprietary preparation of sodium perborate admitted to New and Non-official Remedies. Powers-Weightman-Rosengarten Co., Philadelphia.

Formic Acid, Merck.—A non-proprietary preparation of formic acid admitted to New and Non-official Remedies. Merck and Co., New York.

Agar Agar Powder, Merck.—A non-proprietary preparation of agar agar admitted to New and Non-official Remedies. Merck and Co., New York.

Agar Agar Shreds, Merck.—A non-proprietary preparation of agar agar admitted to New and Non-official Remedies. Merck and Co., New York.

Berberine Hydrochloride, Merck.—A non-proprietary preparation of Berberine hydrochloride admitted to New and Non-official Remedies. Merck and Co., New York.

Fluorescein, Merck.—A non-proprietary preparation of fluorescein admitted to New and Non-official Remedies. Merck and Co., New York.

Mercury Cyanide, Merck.—A non-proprietary preparation of mercury cyanide admitted to New and Non-official Remedies. Merck and Co., New York.

Mercury and Potassium Iodide, Merck.—A non-proprietary preparation of potassium mercuric-iodide admitted to New and Non-official Remedies. Merck and Co., New York.

Swan's Typhoid Bacterin (No. 44) (Prophylactic).—Marketed in packages of three 1 Cc. vials and also in packages of six 1 Cc. vials Swan-Myers Company, Indianapolis, Ind. (Jour. A. M. A., Nov. 27, 1915, p. 1915.)

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No. 6

*THE STUDY OF THE HEART BEAT WITH ESPECIAL REFERENCE TO ITS RATE.

BY PAUL D. WHITE, M. D.

House Physician, Massachusetts General Hospital, Boston, Mass.

Our present day knowledge of the normal and pathological mechanism of the heart beat should prevent us from remaining content with the mere description of the rate of the pulse as slow or rapid. We can now almost always ascertain the exact type of tachycardia or bradycardia in a given patient, and knowing the significance of this type we at once have a sounder basis for diagnosis, prognosis and treatment. In order to acquire the ability to analyze the pulse at all satisfactorily it is essential that we should familiarize ourselves with the more important of the recent discoveries in cardiac anatomy and physiology.

At the junction of superior vena cava and right auricle, in the *sulcus terminalis*, and supplied by a special artery, lies the sino-auricular node (Fig. 1), a specialized muscular structure about 2 cm. long, 2 mm. wide and 2 mm. thick discovered by Keith and Flack (7) in 1907. The upper end or head of this node has been shown by Lewis and others (11, 12, 25) to be the pacemaker from which arises the stimulus which makes the heart beat. It may be likened to a battery; without certain chemical constituents in the perfusing fluid it will not function, and from it there spreads throughout the auricles and to the ventricles a wave of electrical negativity. The vagus and sympathetic nerves, especially those on the right, supply this node richly

*Read before the Cumberland County Medical Society, Portland, Maine, October 8, 1915.

and scattered through it are nerve cells and fibres. From the pacemaker at the head of the node (indicated by mark x in Fig. 1) the excitation wave in the dog's heart has been shown by Lewis, Meakins and the writer (15) to spread fanlike out to all parts of the right auricle, up the superior vena cava, up the inferior cava, down the auricular septum to the bundle of His and across the interauricular band to the left auricle at a fairly uniform rate (500 - 1250 mm. per second). The passage of the wave of negativity is slowest up the superior vena cava and of only average speed down to the A - V node (the direction of the impulse is shown by arrows in Fig. 1). It has been shown that the pacemaker in the sinoauricular node may arise in different parts of that node, usually in the head but as the result of vagal stimulation it may arise from the middle or even the lower end, the tail of the node. (15, 18) The further the physiological pacemaker from the head of the sinoauricular node the slower is its intrinsic rate of stimulus production.

In the connective tissue space between auricles and ventricles lies the main part of the conduction system of the heart. Just above the tricuspid valve, in front of the coronary sinus and under the endocardium of the right auricle lies another body of specialized tissue called the atrioventricular node first described by Tawara (20) in 1908. It also contains nerve cells and fibres and is supplied by the vagus and sympathetic nerves, in this instance more particularly the left. It joins the auricle to the bundle of His. This node rarely may act as cardiac pacemaker, its intrinsic rate being a slow one. The junction between the node and auricle in the cat has been shown to be the most susceptible point in the conduction system and therefore is the point at which the so-called functional heart block would first appear. (14)

Passing along towards the ventricles from the atrioventricular node extends the bundle of His first imperfectly described by Kent, (8, 9) in 1892 and 1893, and more accurately by His (6) in 1893. It consists of a cable of peculiar muscle fibres which conducts the wave of negativity, the excitatory process, to the ventricular musculature. At the membranous septum the bundle divides sending a large branch to each ventricle, on the right coursing down under the tricuspid valve and along the homologue of the moderator band to the papillary muscle at which point it branches off into many twigs going just under the endocardium to all parts of the muscle of the right ventricle. The left branch penetrates the ventricular septum and appears under the endocardium of the left ventricle just below the cusps of the aortic valve. There it divides in turn into two chief branches, each of which passes to one of the two papillary muscles. Here there is extensive branching to all parts of the muscle. The finer end branches are called

the Purkinje fibres and form a veritable network. They may be seen readily as glistening strands under the endocardium of the ox and sheep hearts. It is quite a simple matter to inject the sheaths surrounding the fibres in such hearts. Until Tawara's work the significance of these small strands was unknown although they had been first noted by Purkinje (19) more than half a century before in 1845.

It has been shown (16) that the excitation wave coming down through the bundle of His and its branches reaches all parts of the ventricular muscle simultaneously so that the ventricular muscles start their contraction all together instead of contracting in a peristaltic wave as do the auricles. It was thought until very recently that the ventricles also contracted by peristalsis (5).

We have then an excitatory process represented by a wave of electrical negativity arising in a special muscular structure at the base of the heart and spreading thence through the auricular musculature and thence directly to all parts of the ventricles by way of an elaborate system of conducting cables. The vagus and sympathetic nerves are connected with and act upon certain parts of this complete system, the vagus to decrease the rate of stimulus production in the pacemaker and to retard the passage of the impulse into the ventricles through the node of Tawara and the bundle of His, and the sympathetic nerve to increase the rate of stimulus production in the pacemaker.

The principle of the dominant rhythm is an important point to grasp in the study of the heart. Has the patient in question a dominant rhythm, and if so where does it originate? If the heart beat arises in the sinoauricular node, we say that the dominant rhythm is sinoauricular. This rhythm may be regular or it may be irregular as the result of the vagal reflex of respiration, increasing in rate with inspiration and decreasing with expiration. This arrhythmia is called *sinus arrhythmia* or the youthful irregularity of Mackenzie. (17) If the node of Tawara assumes the role of pacemaker we call the dominant rhythm atrioventricular. If the bundle of His or its branches assume the task, as in complete heart block, we say that the dominant rhythm is idioventricular. Ectopic beats or rhythms may arise from irritative foci in auricular or ventricular musculature which take on the function of pacemaker so long as their rate of stimulus production is greater than is that of the sinoauricular node (as in the case of paroxysmal tachycardia). Single ectopic beats are known now as *premature beats*; the old term "extrasystole" is unsatisfactory and should be dropped. If there is no rhythm at all we know that there is present the condition called auricular fibrillation in which there exists no single pacemaker but a general auricular insurrection without a leader.

We have discussed up till now the question of the production and conduction of the cardiac impulse. The muscular response or the heart beat itself will always correspond with the excitatory process except in degree. For instance we may have a vigorous excitation wave inaugurated and conducted readily but responded to very poorly or irregularly if the myocardium is weak. The most important abnormality of such response is that which produces alternation of the pulse (*pulsus alternans*), known to be vital evidence of myocardial exhaustion and recently shown by the writer (22) to be a common clinical condition.

For the study of the mechanism of the heart beat we possess the finger trained in the examination of the pulse, the stethoscope by the use of which we may determine the pulse deficit which consists of the number of heart beats per minute which fail to appear at the wrist. The finding of such a pulse deficit is an important aid not infrequently as we shall see shortly. Among the instruments for recording the heart beat we possess the simple sphygmograph for taking the very important tracing of the radial pulse; the polygraph for recording simultaneously radial pulse and jugular pulse, apical pulse or respiration, and finally the electrocardiograph which photographs the course of the excitation wave through the heart from its point of origin. Obviously the electrocardiograph cannot do away with the trained finger, the stethoscope or the sphygmograph. It is a valuable additional aid just as is the sphygmomanometer. The finger, stethoscope and sphygmograph all enable us to study the mechanical action of the heart, the electrocardiograph allows us to watch the course of the impulse through the heart; it may be unhampered and normal or it may be obstructed or deflected through the results of disease. Whatever the course it is exposed to us on the photograph which we obtain. In heart disease the sphygmogram alone may be abnormal with a normal electrocardiogram, sometimes the reverse is true, but very often we find both showing evidence of trouble in the same heart. In doubtful or perplexing cardiac cases at the present day examination is not as complete as it should be unless electrocardiograms and radial pulse tracings are secured. Sooner or later it will be possible to get such records in every city; then we shall all be further aided in our estimation of the degree of cardiac damage in a given patient. By this increased knowledge we are bound in the end to diagnose and treat more satisfactorily.

An analysis of tachycardia and bradycardia and a discussion of their significance may now be profitably undertaken with the above points in mind.

TACHYCARDIA.

A. Physiological or normal. Causes of this class of tachycardia are

1. Exercise, which acts partly through the removal of vagal inhibition but probably largely through sympathetic nervous action. This type of cardiac acceleration has recently been studied by Gasser and Meek. (4)

2. Excitement. Primarily sympathetic reflex activity of the sinoauricular node.

3. Fatigue.

4. Voluntary acceleration of the pulse. Very rare. Primarily sympathetic in origin as indicated by a recent study by Favill and the writer (2), in which coincidently with the tachycardia there occurred an increase in blood pressure and a dilatation of the pupils. Acceleration was still possible even after vagal paralysis by large doses of atropin.

5. Heat. It has been shown by experiment that the application of heat to the pacemaker in the dog quickens the rate of stimulus production. (3)

B. Abnormal causes of tachycardia may best be divided into two groups.

I. Extracardiac, that is of abnormal origin but not due to heart disease.

1. Infectious disease. Toxic action.

2. Hyperthyroidism. Sympathetic in origin. Sometimes paroxysms of tachycardia occur in exophthalmic goitre but they differ from the true "paroxysmal tachycardia" in that their onset and offset are not absolutely abrupt.

3. Other toxic causes.

II. Intracardiac.

1. Myocardial weakness acting apparently reflexly on the pacemaker.

2. Paroxysmal tachycardia and auricular flutter, which consist of rapid repetitions of premature or ectopic contractions. In these conditions an ectopic focus usually in the auricular muscle gains the whip hand over the heart and drives it at high speed for varying lengths of time, in the case of paroxysmal tachycardia usually for hours or days ending as abruptly as it began, and in the case of auricular flutter attaining a tremendous speed (often 300 or more per minute) which the ventricles rarely can follow, two to one heart block resulting. Auricular flutter is apparently the rarer of the two conditions and lasts longer, not infrequently for weeks or months. Any pulse rising abruptly to a regular rate over 150 and as abruptly falling, indicates

the presence of paroxysmal tachycardia which in itself although often very uncomfortable is rarely fatal. The various recommendations for treatment of a paroxysm of tachycardia are almost as numerous as the patients themselves, many of whom claim to have their own pet ways of stopping the paroxysms. Usually the paroxysm stops abruptly of itself no matter what the treatment. The relationship of auricular flutter to treatment is different for here we have a condition which yields quite readily. Digitalis is very helpful in producing higher grades of block, thus resting the heart, and finally inaugurating auricular fibrillation which may cease on stopping the administration of the drug, normal sinoauricular rhythm being restored. Any regular constantly rapid pulse which halves its rate or becomes slower and irregular on treatment with digitalis should make one strongly suspect auricular flutter. Flutter is nearly always associated with myocardial damage resulting from rheumatism or arteriosclerosis. Paroxysmal tachycardia is less significant. Finally we come to the most important of all tachycardias:

3. Auricular fibrillation. This common condition, first described as a clinical finding by Lewis (10) in 1909, consists of the cessation of normal auricular contraction with regular ventricular response and in its place fibrillary activity of the distended auricular walls with resulting rapid and absolutely irregular impulses passing through the bundle of His to stimulate the ventricles to contract. It is the result of myocardial disease, as in flutter nearly always occasioned by rheumatic infection or arteriosclerosis. Any pulse absolutely irregular and rapid (over 100, often over 120 or 130) is practically always indication of auricular fibrillation. The finding of a *pulse deficit* is not infrequently helpful in establishing the diagnosis, for example a rapid irregular apex beat of 150 and a less rapid equally irregular radial pulse of 110 with a resulting pulse deficit of 40. About one-third of all patients with cardiac insufficiency show this type of pulse (absolute irregularity) and many more than one-half of all patients with auricular fibrillation show signs of cardiac insufficiency. Hearts with this condition are the most satisfactory to treat for to them digitalis and allied drugs act as a specific, that is not only does the digitalis strengthen the contracting force of the myocardium but it also quickly acts on the conducting system, producing considerable degrees of heart block and thus rests the ventricles from the lashing of the fibrillating auricles. An excellent illustration of the beneficial action of digitalis in auricular fibrillation is shown in the accompanying chart (Fig. 2). Here the apex rate dropped as the result of heart block while the radial pulse actually rose as the result of increased force of the previously very weak systoles. The pulse deficit diminished quickly almost to

zero in consequence of this effect. Later both apex and radial pulses dropped together under further treatment.

In the analysis of tachycardias clinical experience, the finger and the stethoscope may often suffice but not infrequently for the sake of accuracy and sometimes even for diagnosis itself graphic records are necessary, either pulse tracings which usually suffice or electrocardiograms which differentiate more easily and completely the types of tachycardia.

BRADYCARDIA.

A. Physiological or normal. Causes of this type of bradycardia are

1. Rest and sleep. Some normal healthy individuals have very slow pulses on first waking in the morning with rates even below 50 per minute, due to vagal slowing of the pacemaker in the sinoauricular node. In hibernating mammals, as has been shown by Buchanan, (1) complete dissociation of auricles and ventricles may occur.

2. Convalescence. Not infrequently in convalescence vagal tone may be high and the pacemaker in the sinoauricular node strikingly depressed. Needless alarm is aroused at times by such pulses with the fear that heart block may be present. An electrocardiogram or a polygram in such cases shows normal but slow sinoauricular rhythm. Similar marked bradycardia is sometimes encountered after childbirth.

3. Vagal pressure. Digital pressure on the vagus nerves in the neck normally slows the pulse with persistence of sinoauricular rhythm. Ocular pressure produces the same phenomenon. The so-called "sinoauricular block" consists of longer periods of inhibition of stimulus formation in the sinoauricular node than one finds from average vagal activity,— it is probably quite different in type therefore from the obstruction to already formed impulses which we find in a-v block. Wenckebach (21) has spoken of long intervals of standstill of the whole heart as "Luciani's periods."

4. Cold. Exposure of the body to cold air and cold baths will slow the pulse. Experimentally (13) cold applied to the sinoauricular node slows the rate of stimulus production and may drive the pacemaker entirely out of this node and down into the node of Tawara just as does also strong vagal stimulation.

5. Fear and pain. Reflex from sights, sounds, pain sensations.

B. Abnormal causes of bradycardia can be divided into two groups similar to those producing tachycardia.

I. Extracardiac:

1. Toxic, as from digitalis which acts in part through the vagus on the sinoauricular node. Bile and lead may also produce bradycardias.

2. Excessive vagal tone in *vagotonie*, vagal neuritis and vagal pressure from cervical tumors.

3. Increased intracranial pressure acting on the vagal center in the brain. Brain tumor, abscess, or hemorrhage, fractured skull, and meningitis may cause increase in pressure and in such conditions bradycardia is often found.

II. Intracardiac.

1. Atrioventricular rhythm, which is rare. The a-v node has a slower rate of impulse formation than the s-a node. A very unusual patient with this rhythm has recently been studied by the writer (24); in this case the sinoauricular node was apparently out of commission.

2. Heart block. This is one of the rarer causes of bradycardia except of the extreme bradycardias. Heart block, when not toxic, is evidence of damage to the node of Tawara or to the bundle of His. It may be of any degree from partial to complete, dependent on the degree of damage to the junctional tissues. Arteriosclerosis, syphilis and rheumatism are etiologic factors; the later years of life fall an easier prey than do the early years. If occasional beats are missed the pulse becomes slower and irregular, if every other beat is dropped the pulse rate halves but is perfectly regular. If the block is complete the pulse rate hovers around 30 to the minute and the rhythm is regular, the atrioventricular junctional tissues containing a regularly though slowly acting pacemaker.

Heart block is an index of widespread damage in the heart muscle and is a bad sign although patients even with complete block may live for years. Stokes-Adams fits occur in partial block, apparently as the result of great depression of the conducting power of the a-v node and bundle and in complete block through some direct depression of the pacemaker in the a-v junctional tissue. The fits are due to cerebral anemia resulting from the prolonged asystole of the heart. Sometimes there occurs marked depression of the sinoauricular node with long periods of standstill of the whole heart attended by phenomena closely resembling the Stokes-Adams syndrome. Defective conduction in one or the other of the branches of the bundle of His may be present with relatively little evidence of heart trouble generally. The electrocardiogram is the only means of detecting such trouble. Knowledge of the presence of these lesions is very important in forming one's judgment of the myocardial condition and in satisfactorily prognosing and treating. Alternation of the arterial pulse is sometimes found with cardiac damage of this nature and substantiates electrocardiographic evidence. Limitation of activity and at times rest in bed and even digitalis are indicated in the treatment. Digitalis may be given if it seems desirable to cases of complete heart block with evidence of insufficiency as reported in a recent case by the writer. (23) Antiluetic therapy is of course strongly indicated in syphilitic heart block.

SUMMARY.

In this communication an analysis has been made of the anatomical and physiological basis for the differentiation, significance, and treatment of tachycardias and bradycardias.

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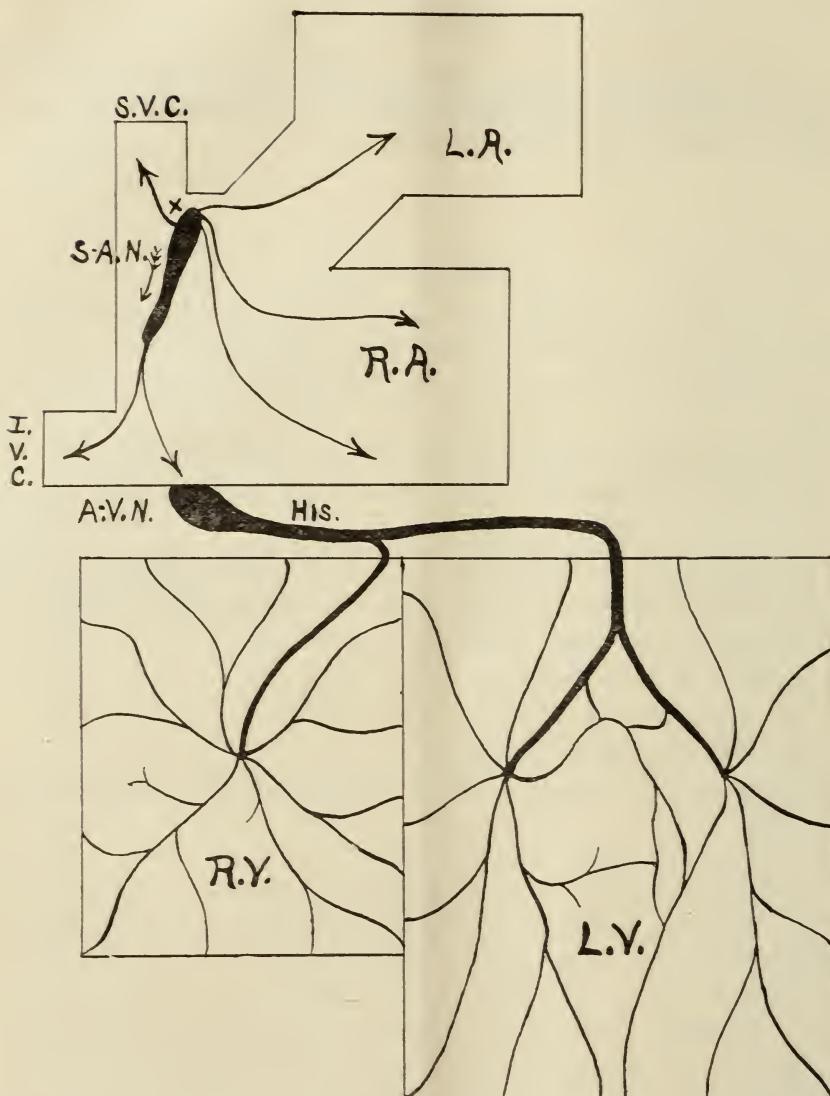


Fig. 1. Diagram of nodes and conduction system of heart. Size of these special structures exaggerated.

S-A.N. = Sinoauricular node.

A-V.N. = Atrioventricular node.

His. = Bundle of His.

S.V.C. = Superior vena cava.

I.V.C. = Inferior vena cava.

R.A., L.A. = Right auricle, left auricle.

R.V., L.V. = Right ventricle, left ventricle.

X = Pacemaker normally located at head of sinoauricular node.

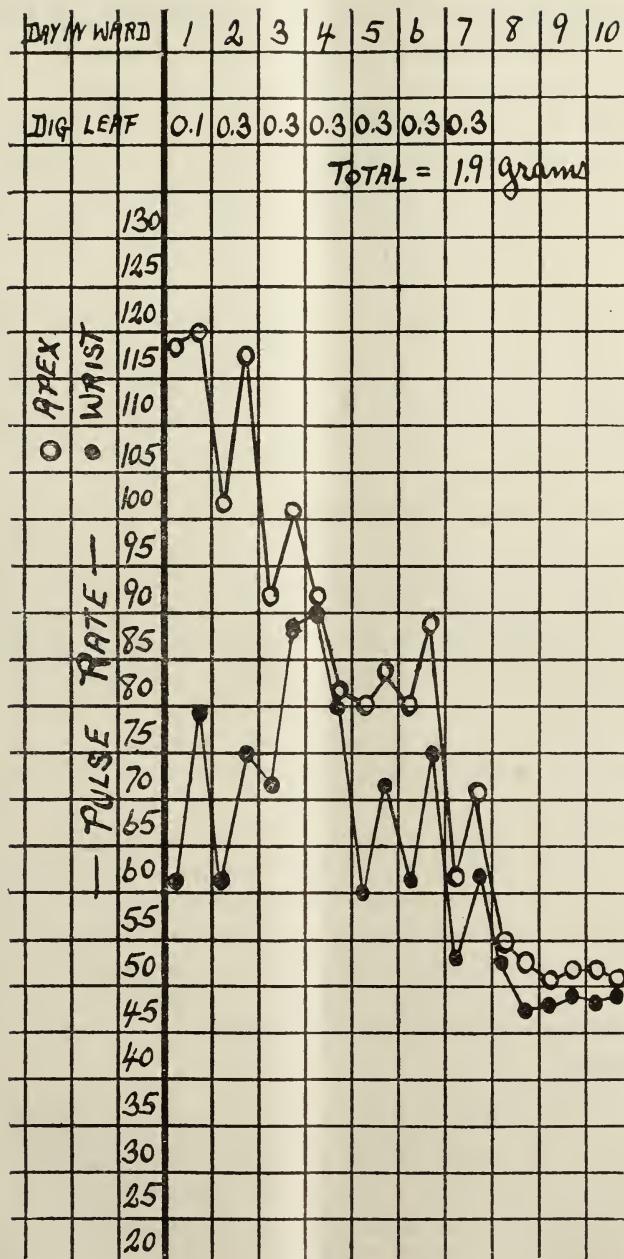


Fig. 2. Apical and radial pulse rates in a patient with auricular fibrillation, showing the rapid decrease of the *pulse deficit* as a result of digitalis therapy. Amount of digitalis given is indicated on the chart.

*CHRONIC GASTRIC AND DUODENAL ULCER.

DR. WILLIAM H. BRADFORD, PORTLAND.

Members of the Maine Medical Association, and Ladies:—

Through the opportunities that surgery, in the last few years, has furnished for inspection and examination of the stomach, much accurate knowledge of the pathology of this organ has been acquired. By this direct method of study in the living, many errors and misconceptions have been corrected.

The stomach itself is not often diseased, but since chronic dyspeptic symptoms are common, it receives much treatment that should be directed elsewhere. A good proportion of those conditions that were formerly thought to be diseases of the stomach, because of the preponderance of gastric symptoms, are in reality groups of symptoms arising from diseases or conditions of other organs or tissues in some way more or less intimately associated with the stomach. The stomach is simply the mouthpiece calling attention to some disturbance.

Chronic dyspeptic symptoms may be due to some functional disturbance depending upon improper eating, food, manner of living or habits, or upon an unstable condition of the nervous system; they may be due to some organic disease of the stomach or duodenum, as gastritis, cancer or ulcer; the symptoms may be reflex due to disease of the gall-bladder, appendix, or pelvic organs; they may be due to disease of other organs as the heart, liver or kidneys, or to constitutional diseases as syphilis, arterio-sclerosis, the anaemias, diabetes, lead poisoning, etc.

The essential factors in making a diagnosis in gastric and other conditions causing dyspeptic symptoms are:—A painstaking investigation of the clinical history, a careful general physical examination, and especially of those organs that may cause similar symptoms, examination of the fasting stomach contents; also one following a test meal.

Of the cases with chronic dyspeptic symptoms that should properly be considered surgical, the large majority are gall-bladder disease and appendicitis.

With all the measures at our command, it is sometimes difficult and may be impossible to differentiate gastric and duodenal ulcers from other lesions causing gastric symptoms, particularly those of the gall-bladder and appendix. Ulcers of the stomach at a distance from the pylorus, without food retention, may present symptoms so indefinite that a positive diagnosis cannot be made. On the other hand, most ulcers (75 or 80%) give such a clean cut picture that an accurate

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diagnosis is easy. This is especially true of uncomplicated duodenal ulcers and ulcers situated in the pyloric portion of the stomach. The differential diagnosis between gastric and duodenal ulcer is generally free from difficulty, but may be impossible. A preoperative differential diagnosis, however, is not essential, the presence or absence of a lesion being the important surgical consideration.

From 1893 to the present time, more than 2000 ulcers of the stomach and duodenum have been operated upon at the Mayo Clinic. As a result of a careful observation of this vast amount of material, the Mayos believe that ulcer is three times more frequent in men than in women, and that duodenal ulcer is about three times more frequent than gastric. A single ulcer only is usually present.

Of gastric ulcers 90% are situated along the lesser curvature and more than 80% in the pyloric half of the stomach. Induration may extend downward upon the anterior and posterior walls, producing the so-called saddle ulcer. If not on the lesser curvature, the ulcer is more likely to be on the posterior than the anterior wall. An erosion or superficial ulceration may be present on the wall opposite the ulcer, known as a contact ulcer. Induration and cicatritial tissue about an ulcer may be extensive; hence the pyloric obstruction and food retention resulting from an ulcer near the pylorus. The ulcer itself will average the size of the end of a lead pencil; if large it is likely to be malignant.

Most duodenal ulcers are within two inches of the pylorus and are usually on the anterior or superior wall of the duodenum.

Acute perforation through the base of a chronic ulcer into the free peritoneal cavity is not uncommon. It usually occurs on the anterior wall, and the escaping fluid gravitates downward, the symptoms simulating perforated appendix. At operation the condition of the appendix and the presence of stomach and duodenal contents in the peritoneal cavity will lead to further search until the true cause is found. Chronic perforation, with protecting adhesions to neighboring organs, is common, occurring in about 30% of all cases. Sub-acute perforation, with formation of secondary abscesses under the diaphragm or elsewhere, due to the slow escape of fluid through the perforation imperfectly protected by adhesions, sometimes occurs.

Hypersecretion and hyperacidity stand out as prominent symptoms in both gastric and duodenal ulcers, hypersecretion being the more persistent. Hyperacidity is often more marked in duodenal than in gastric ulcers. The stomach tube will remove from the fasting stomach a bile-stained, acid, pugnant fluid very characteristic of ulcer, and differing greatly from the dirty, sickish, coffee-ground material of cancer.

Epigastric pain is present in nearly all cases; it may be a mild dis-

tress, a burning, gnawing pain, a colic or severe pain requiring opiates. In some gastric ulcers it may radiate to the back, suggesting posterior perforating ulcer, or to the lower abdomen, suggesting appendicitis. The location and radiation of the pain are very likely to be misleading.

This pain comes on usually one-half to four hours after eating, depending somewhat on the location of the ulcer. As a rule, the longer the interval between food intake and onset of symptoms, the lower the ulcer. Pain continues until the stomach empties itself. It is relieved by vomiting, irrigation, taking alkalies or food. Hunger pain and food relief are very characteristic symptoms of ulcer. The time that the pain begins, and the methods by which it is relieved are of more diagnostic value than its intensity or location. In old cases with advanced complications, such as perforations, adhesions and obstruction, food often causes immediate pain; this is also often true in ulcers of the body of the stomach. Alkalies will give more relief in the earlier than in the later stages of the disease.

Hemorrhage may occur either as hematemesis or melena, or both. A history of hemorrhage can be obtained in about one-quarter of all cases of ulcer. It cannot, however, be depended upon as a valuable diagnostic sign except in connection with other and more positive, corroborative evidence. Gastric hemorrhage, unless accompanied by other evidence of chronic ulcer, is probably from medical ulcers, so-called, as toxic erosions, acute ulcers, mucous ulcers, fissures, etc., and is not to be treated surgically.

Laboratory examination of stomach contents, the finding of occult blood, etc., are valuable when taken in connection with other symptoms. When taken by themselves, they should not be given too much weight. The removal, with the stomach tube, of fine undigested food particles, eight to twelve hours after a meal, is strongly suggestive of a mild degree of pyloric obstruction. This indication of food retention is a most valuable diagnostic sign and an important indication for surgical treatment. Cases of pyloric stenosis with obstruction and food retention to an extreme degree are occasionally seen. All duodenal ulcers and gastric ulcers near the pylorus will, in time, develop symptoms of obstruction. In a series of 400 gastric ulcers over 65% showed food retention after twelve hours.

The X-ray is a valuable aid to clinical diagnosis, and furnishes additional evidence as to the presence and nature of the gastric or duodenal trouble. It should not alone be relied upon to make the diagnosis, but frequently will provide remarkable assistance, in connection with other evidence, in arriving at a correct understanding of the case.

In ulcers of the duodenum and gastric ulcers near the pylorus, the symptoms come on in rather regularly recurring attacks. Pain, gas, acid belching, sour burning regurgitations and vomiting come on each day or night at about the same time; there being one attack or several in each twenty-four hours. These recurring attacks may continue for days or weeks, to be followed by a period of more or less complete intermission, the symptoms usually occurring only when the ulcer is in an active state with more or less surrounding inflammation. Alternating attacks and intermissions, the ulcer never healing, continue for years, the attacks gradually coming oftener and with increasing severity. In the later stages obstruction comes on from contraction of old inflammatory tissue, the patient becomes weak, emaciated, and anaemic from malnutrition, a condition of invalidism gradually increases, and often becomes quite complete. In the Mayo Clinic over 85% of the cases give a history of attacks and intermissions extending over a period of from one to thirty-seven years, the average being about twelve years.

An ulcer once developed, healing is prevented, and the tendency to chronicity aided, by muscular activity of the organ, the action of gastric juice upon the eroded surface, implantation of infection upon the base of the ulcer, together, usually, with the poor general health of the individual.

Most acute and sub-acute, and some chronic ulcers can, without doubt, be completely and permanently healed by proper medical management. Permanent healing of chronic ulcers, however, unless treated surgically is exceedingly rare. In every recent ulcer, unless some dangerous complication exists, such as perforation or hemorrhage, thorough medical treatment should be tried before resorting to surgery. This consists in absolute rest in bed, together with a most rigid diet for a number of weeks to give time for granulation and cicatrization of the ulcerated area. The active symptoms quickly subside with proper treatment, but to get permanent healing requires time, patience, and co-operation on the part of the patient. Recurrence of symptoms means failure of healing. Repeated and prolonged attempts to heal by medical means should not be tried on account of the tendency of cancer to develop on the base of a gastric ulcer. In a series of 566 cases of proved cancer, 41% showed that the cancer developed on the base of a pre-existing ulcer.

The dangers from operation are much less than those from the complications of ulcers such as perforation, hemorrhage, obstruction and malignant degeneration.

Perforation cases should be treated surgically at once. Hemorrhage cases require very careful consideration to determine whether

they should receive medical or surgical treatment, and if operation is decided upon, when it can be done with the greatest safety. Other gastric and duodenal ulcer cases should have surgical treatment when satisfactory medical treatment in a reasonable time fails to effect a cure.

In acute perforation of a chronic ulcer, the perforation alone may be closed, but it is believed by most surgeons that better immediate and permanent cure can be obtained if a gastroenterostomy is also done. Just what surgical procedure should be adopted in the treatment of an ulcer can be determined only after opening the abdomen and making a thorough exploration of the condition present. The ideal treatment by complete excision of the ulcer, this to be accompanied by a gastro-enterostomy, is often not practicable on account of condition of patient, location of the ulcer, adhesions, resulting distortion of the organ, or tension on sutures and leakage.

If the ulcer is on the duodenal side of the pylorus, excision is rarely demanded on account of existing or subsequent malignant changes, since malignant disease of the duodenum is exceedingly rare. On the other hand, if situated on the gastric side of the pylorus, malignant changes are quite common, and excision should be practiced when the technical difficulties are not too great.

Duodenal ulcer is best treated by gastro-enterostomy together with some method to insure a permanent closure of the pylorus.

Gastric ulcer, if situated near the pylorus, should be treated by gastro-enterostomy, and the greater the pyloric obstruction, the better the results will be.

Ulcers of the body of the stomach are less favorably situated for relief from gastro-enterostomy, and this operation should always be accompanied by complete excision of the ulcer when possible. Ulcers of the body of the stomach that cannot be excised and are not likely to be relieved by gastro-enterostomy, and also ulcers of the cardiac end of the stomach, are best treated by jejunostomy. The patient is well nourished by food taken through a tube placed in the jejunum, the ulcerated surface gets complete rest, and so healing is favored. This procedure may be continued for several months if necessary.

The results obtained from surgical treatment of people suffering from chronic gastric and duodenal ulcer have been among the most satisfactory in all my surgical experience. The mortality has been exceedingly low. A man with acute perforation of a chronic gastric ulcer died one week after operation. With this exception, no deaths have followed surgical treatment.

Among my successful cases, the following may be briefly mentioned:

A. B. M. Male, age about 30, operated on eight years ago for a large palpable mass diagnosed as gastric cancer, is now perfectly well and often expresses to me his appreciation of what was done for him.

S. E. M. Male, age 57. Gastric ulcer. "Perfectly miserable for seven years." May, 1914, had pyloric half of stomach removed. Has gained 55 lbs. since operation. One year after operation says: "I cannot express in words the amount of improvement; feel as I did twenty-five years ago."

C. B. S. Male, age about 60. "Had been taking medicine for stomach trouble for thirty years." Emaciated and anaemic. Duodenal ulcer. Operation, November, 1914. May 28, 1915, his wife told me that since operation his improvement had been wonderful and there was no need for medicines now.

DISCUSSION.

THE PRESIDENT:—The general discussion will be opened by Dr. Chase of Portland.

DR. CHASE: This paper of Dr. Bradford's is a good, fair, presentation of the subject considered. It is much the kind of paper that might be expected from any surgeon who is well posted on the subject, and I do not see how any medical man can justly take exception to its general contents. Remember, please, Dr. Bradford has discussed *chronic* gastric and duodenal ulcer, conditions which until very recently have not to any extent been recognized by either the medical or surgical branch of our profession. Even our very latest text books on diseases of the stomach contain but meager descriptions of these conditions. Is it to be wondered at, then, that only a small minority of our profession is familiar with this subject? The diagnosis of these conditions can as a rule be made only by those who know the history of these diseases, and who employ the various modern methods of diagnosis.

Acute peptic ulcer, especially those cases with hematemesis, is, as it ever has been, generally diagnosed and treated by the general practitioner. Many acute cases, however, are either overlooked, or but poorly treated, else there would not be so many chronic cases coming to light. The treatment of these acute cases, as Dr. Bradford has stated, belongs to the medical man; but if he is to treat these cases, he should do so in a thorough manner. All well recognized medical treatments of ulcer demand absolute rest in bed for several weeks, and I believe no attempt should be made to *cure* ulcer without this period of rest. The best medical treatments today are, namely, the Leube, (often called starvation treatment) and the Lenhartz treatment. The percentages of cures reported by these two methods are very much the same, although each method has its own strong advocates.

The treatment of ulcer with liquid diet, antacids, bismuth, gastric lavage, etc., without the period of rest, offers little hope of a cure. To be sure, marked relief, or complete cessation of symptoms, may often result therefrom; but almost always if such cases are followed a few months to a year or two, a recurrence of symptoms will be encountered. This has been my experience in the past, especially with hospital cases; and I abandoned the treatment some years ago.

In many cases of chronic ulcer, a thorough examination discloses conditions which are evidently amenable to surgical treatment only, and the results obtained in these cases by good surgery are certainly gratifying. In some chronic cases, however, such conditions are not found. In these cases, I believe a thorough medical treatment is to be tried *once*, — not nine times as our brother W. J. Mayo facetiously permits. (Applause)

THE PRESIDENT: In the absence of Dr. Milliken, the discussion is now open.

DR. WILLIAMS: Mr. President, I have just a word to say, rather by way of personal experience. You know the things we learn and profit by, whether in our reading or experience, are the things which occur in connection with our own work, or which our reading brings into connection with our own work. Our reading is of very little use to us unless we connect it up with something which has happened in our medical or surgical experience. Now a bit of personal reminiscence, and I won't detain you long. I was fortunately in Chicago some years ago representing this Association, and such men as Dr. Murphy were showing my friend and myself about the hospitals in connection with surgical work. Wishing to further please us they said: "Where will you be tomorrow? We would like to show you something else." We said that we were going to Rochester to see the Mayo clinics. "Oh," they said, "There you will see surgery at wholesale. We are only retailers here in Chicago." This shows the experience that one may get at the Mayo clinics.

Now in connection with the subject which has been treated as one would expect from the writer, in a thorough and conservative manner! As you know, at the Mayo clinics, there is a list of the operations which are to be performed placed on the blackboard, so that it may be seen what the operations of the day are to be and who is to make them. There was one which interested me put down on the blackboard in this way. My acquaintances of the Androscoggin delegation will remember that I have already told this, but some of you may not have heard it. The legend on the blackboard was this: "Stomach, gall bladder, appendix." That was one case. Now you know that the Mayos have every facility for diagnosis. If a diagnosis could be made by any American surgeon, we should expect it to be made by the Mayos. I saw the case operated on because the way it was scheduled interested me. They made an opening and thoroughly examined the stomach and duodenum. They made at the same time an examination of the gall bladder. I am not sure but they made a second opening to get it out. They made another opening for the appendix, and took out a diseased appendix, supposedly by that method curing their patient; so that the question of diagnosis is not an absolutely simple one.

In connection with the treatment of hemorrhage, I had a little personal experience which I will relate. I operated, making a gastroenterostomy, for two cases of hemorrhage. One of the points I wish to make is that both had repeated hemorrhages, so severe that we were afraid the next one would be fatal. The first one so operated on had recovered from the shock of the hemorrhage, or partially recovered. The second had two hemorrhages only three or four days apart, and apparently was going to have another, and I ventured to operate in the face of what seemed to me to be certain death without before the patient had recovered from the depression of the hemorrhage. Fortunately, and perhaps unexpectedly, both cases recovered.

DR. PORTER: Mr. President, I have not much to say, but I have been very much interested in this paper. It has been my fortune to have two cases, which

I will just speak of for a moment. Some twenty-five years ago I was called to see a man, and I diagnosed his case as gastric ulcer. Afterwards he went out of my life and a few years later died. I had the privilege of seeing a post mortem examination, and, instead of a gastric ulcer, we found a duodenal ulcer. It was thought by his family that he had received an injury in the side by being hooked by an animal; they thought that might have started the trouble. He had been troubled for some fifteen years with this stomach trouble, periodical attacks, and oftentimes had considerable hemorrhage. A few years later, some seventeen or eighteen years ago, I saw a gentleman of about seventy years of age who had been having acid stomach, hemorrhages, and some day or two before he died he came into my hands and care. I diagnosed the case as gastric ulcer, and he lived about thirty-six hours—severe hemorrhage. I had the privilege of a post mortem examination there, and again I found a duodenal ulcer. What interested me much was: How could I diagnose a case of duodenal ulcer from one of gastric ulcer. I have watched many papers and writings since, and I have heard the most today in regard to a differential diagnosis that I have ever heard.

DR. BRADFORD: Mr. President, I have very little to say in closing this discussion. I would say, however, that this is one of the live subjects of the day, and my impression is—that although the condition is not especially common—that a good many chronic gastric and duodenal ulcers exist that are unrecognized; and it seems to me that it is our duty to try and recognize more of them than we have been doing in the past. I had a little experience the night before I left Portland to attend this meeting. I was called out between eleven and twelve o'clock to see the wife of a physician in consultation. She had stomach symptoms more prominent than any others; and, from a comparatively short examination of the case, I made up my mind that it was probably a case of cholecystitis, and not a case of stomach difficulty of any sort. While I was in the house the physician told me that his father was suffering from symptoms referable to the stomach, naming to me some of the symptoms. I said that I thought his father had an ulcer either of the stomach or duodenum. This is an experience I had just before leaving home to come here; and I really think that we can all of us find quite a good many cases if we are on the watch for them.

ACIDOSIS.

BY CARL M. ROBINSON, M. D., PORTLAND, MAINE.

At this time when the lay press is giving much attention to the "new and mysterious disease, acidosis" and is ascribing to it the unusual number of deaths among children in the present epidemic of influenza, it may be well to review briefly the few established facts concerning this condition.

Acidosis is not a disease entity, but is a condition frequently met in many medical and surgical diseases. As a type of acidosis, we are all familiar with that found in cases of grave diabetes with the marked increase in acetone bodies in the urine, the fruity odor to the breath, the complete prostration and the mental condition varying from drowsiness to profound coma; but it has not been until recently that the condition of acidosis has been recognized in many other disorders.

Acidosis or acid intoxication is a pathological condition in which there is a diminution in the titratable alkalinity of the blood and body tissues due to the retention of certain acids in the body, or as Sellard has said, it is a condition of increased alkali tolerance. In marked grades of acidosis the blood by titration with phenolphthalein may be neutral or slightly acid, while normal blood is strongly alkaline. The physico-chemical reaction of the blood, however, expressed in terms of hydrogen ion concentration, is practically constant in health and disease and, as Benedict says, "death soon ensues if the change as determined by the most accurate measurements is appreciable." Acid substances are constantly being formed as excretory products of metabolism. These are normally combined with bases in the blood and carried to lungs or kidneys for excretion. Carbonic acid is excreted by the lungs but sulphuric, phosphoric, acetoacetic, B-oxybutyric and similar acids are excreted by the kidneys. If the normal relation of production and excretion is disturbed, the reaction of the blood varies. In disease the change is always toward acidity. The exact degree of acidosis may be determined very accurately by the estimation of the alveolar CO_2 as the pressure of CO_2 in alveolar air falls with increasing acidosis, or by titration of blood serum to phenolphthalein. Palmer and Henderson, however, have suggested a clinical method depending on the amount of sodium bicarbonate necessary to reduce the acidity of the urine. If an amount of alkali equivalent to one liter of $\frac{N}{10}$ solution of Sodium Bicarbonate fails to produce a diminution in the acidity of the urine, "a condition of acidosis may be assumed to exist." Less accurately 4G Sodium Bicarbonate may be given between meals. If marked reduction in urinary acidity occurs there is no accumulation of acid in the body and alkali is not indicated, but if no reduction in acidity occurs alkali should be given until this effect is noted.

In acidosis we find:

1. Increase in the tolerance of the body to fixed bases.
2. Decrease in titratable alkalinity of the blood.
3. Decrease in CO_2 content of the blood.

The estimation of the amount of acid in the urine may give no clue to the degree of acidosis. This is occasionally seen in cases of severe diabetes where only a moderate amount of acetone, diacetic, and oxybutyric is found in the urine although grave acidosis exists.

The condition of acidosis is met in every division of the field of medicine. The internist, the surgeon, the obstetrician, the pediatrician, and the neurologist, all have their special problems in the treatment of patients with acid intoxication. Not only clinical experience but experimental work as well has aided in the study of this condition. Observations on acidosis have been made in studying the phloridzin and pancreatic types of diabetes in dogs.

We find varying degrees of acidosis not only in diabetes but in certain febrile conditions of childhood, in cyclic vomiting, in carbohydrate starvation, in pernicious vomiting of pregnancy, in eclampsia, in pneumonia, in some of the severer types of circulatory disturbances, in the severe anemias, in poisoning with arsenic, lead, phosphorus, chloroform, ether and alcohol, in the generalized parenchymatous nephritides when accompanied by generalized edema and also in post operative conditions.

While the conditions produced in these various diseases may all be classed as acidosis, from the accumulation of acids in the blood and tissues, the mechanism of its production may vary considerably. We have three factors to consider; the mechanism of acid production, the neutralization of acids so formed, and elimination. Increased production of acid may be due to muscular effort, to emotional disturbances, to infections, to surgical shock, to asphyxia, to inhalation anaesthetics, or to faulty metabolism.

For the neutralization of acids so formed probably the only base formed in the body is ammonia. Other basic substances must be received from without. The neutralization of acids in the body is controlled by certain fundamental organs. Thus interference with the function of the liver or adrenals may be an important factor in the production of acidosis.

As to the deficient excretory functioning of the kidney in acidosis, Fischer of Cincinnati in speaking of certain types of nephritis with Sodium Chlorid retention, says, "Na. Cl. retention does not lead to edema but the causes which lead to edema and to Na. Cl. retention are the same, consisting in the main of an abnormal production and accumulation of acid in the body.

Perhaps the subject of this paper might have been "Medical and Surgical Shock" in accordance with the conception that all stimuli when excessive or too long continued produce a certain degree of shock on the animal organism whether they be traumatic, toxic, emotional, or infectious. Physical or mental shocks from pain, rage, fear, or fatigue, causes depression of the kinetic system, and whether it be through this effect on the kinetic system or not shock causes disturbances in metabolism with resulting accumulation of acid by-products

- and the clinical picture of acidosis. We must also add as causes of shock with resulting acidosis the toxins of infections and the poisonous action of certain drugs.

The observations of Dr. George Crile on the soldiers in the present war have established beyond a doubt that persistent mental strain and physical stress, the so-called "kinetic drive," causes actual physical and functional changes in the brain, thyroid, adrenals, and liver, and thus causes changes in metabolism with resulting acidosis.

- As in all rational therapy the treatment of acidosis depends largely on the underlying cause whether it be metabolic, infectious, toxic, or traumatic. In most diseases even a moderate grade of acidosis is of grave significance and so prophylaxis is of the utmost importance.

The treatment of acidosis after its development consists in diminishing the production of acids; neutralization of acids already formed; and increasing elimination by appropriate measures. The administration of large amounts of fixed bases is often indicated, either by mouth, by rectum, subcutaneously or intravenously, also the use of glucose solutions through similar channels. The accompanying cardio-vascular condition may also need stimulation. Morphia, although extremely useful in the prevention of surgical acidosis, interferes with the neutralization of acids already formed and so is contraindicated unless severe pain is present and is increasing the accumulation of acid.

Medical Knowledge-Blockade Declared Against the Allies by the German Government.

"Medical Literature and Our Enemies."

The German war office has issued the following PROCLAMATION:

It has been of late repeatedly observed that our enemies are trying to buy medical books and other medical printed material issued exclusively by German firms. Led by the efforts to keep away from the sanitary leaders of inimical foreigners, the fruits of German medical knowledge, several commanders-in-chief have prohibited the exportation of such works in their respective commands. Such a rule appears eminently proper.

It is therefore, ORDERED; that all officials having charge of ports of export, are to be informed that the exportation of all such printed medical matter which might prove of value to the health and recovery of our enemies is not for the interest of the government; and that they must take all proper means to prevent and obstruct as much as possible the exportation of all such works. A communication to the firms which publish medical books and pamphlets in the chief army districts will facilitate the enforcement of this suggestion. In case of doubt whether a given medical or surgical publication might or might not be of value to our enemies, inquiries are to be made at the Medical Department of the ministry of war.

IMPORTANT ANNOUNCEMENT.

It is or should be an honor to present a paper before the Maine Medical Association. The Committee on Program for the ensuing year, conscious of this fact, feels strongly that only those of merit deserve a place on the program; and proposes to institute a somewhat different method for their selection from that which has hitherto prevailed,—competition.

With the single exception of the annual orator, persons will be assigned to the program whose papers conform most closely to certain requirements which the committee regards as elemental.

First.—The topic dealt with should be timely.

Second.—It should represent the experience of the writers so far as may be, or it should be a first hand account of a personal observation of the work of others.

Third.—It should, if possible, be an addition to the summary of medical knowledge.

Fourth.—Form will not be accepted for substance.

It is desirable that all papers be in the hands of the chairman of the Committee not later than March 1, 1916; and that each essayist submit the names of two members of the profession who are competent and *who have agreed* to open the discussion upon his particular topic. Bear in mind, too, the time limit of twenty minutes for all readers and five minutes for subsequent speakers.

This competition is open to all members of the State Association, irrespective of how recently one may have read. Its object is the presentation at the next session of papers of worth and, incidentally, to provide a stimulus for better and original work.

The best eight or ten papers in the judgment of the committee will make up the program, and the fortunate ones will be duly notified of their selection. It is earnestly hoped that many will avail themselves of the privilege and opportunity herewith extended to contribute to medical knowledge and to the success of our next meeting.

E. W. GEHRING,

J. F. THOMPSON,

H. E. MILLIKEN,

Committee on Program.

July 12, 1915.

BULLETIN NO. 1

OF
THE JOURNAL OF MAINE MEDICAL ASSOCIATION.

Dear Doctor: — This Journal and the Coopoerative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

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Perhaps you want a certain kind of instrument which is not advertised in this Journal, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages: but if they are not, we urge you to ask this Journal about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn Street, Chicago.

We want this Journal to serve you.

Look for Bulletin No. 2, in our next issue. Sincerely

YOUR EDITOR.

The Constitution as a Cloak.

"New York City's ordinance regulating the sale of 'patent medicines' went into effect the first of this year. It requires that the names (not quantities) of all potent ingredients in 'patent medicines' shall be either printed on the label or given, in confidence, to the Department of Health. While many reputable wholesale druggists and dealers in 'patent medicines' are complying with the law, the 'patent medicine' exploiters generally are fighting it. We understand," says *The Journal of the American Medical Association*, "that applications have been made for a temporary injunction against the enforcement of the ordinance by at least two New York drug concerns. The Proprietary Association—the 'patent medicine' combine—is, of course, behind the action of these individual concerns. The ground on which the 'patent medicine' interests are attacking the ordinance is that it is unconstitutional! The argument is a pretty one. A federal law, which has been in effect nine years, requires manufacturers of 'patent medicines' to print on the label not only the names but also the quantities of certain specified ingredients—and nobody has even suggested that this was unconstitutional. The principle may be illustrated thus: If a man puts up a headache powder composed of acetanilid, sodium bicarbonate and caffein he has, under the federal law, to declare the presence and quantity of acetanilid—which he does without a whimper. When, however, he is asked to declare the presence—not amount—of caffein and making soda, he appeals to the Constitution of the United States for protection. Or again: If a man wishes to furnish suffering women in dry territories with a 'Tonic' consisting of alcohol and the extractives from a few innocuous and long discarded herbs, he does not consider that his 'property' has been taken from him 'without due process of law' because it is necessary to declare the presence and amount of alcohol; but should he have to give the names of the weeds he uses for making his tonic he immediately cries to high heaven that the Fourteenth Amendment of the Constitution of the United States has been violated. It is a curious fact that whenever a particularly profitable fraud is about to be restricted by legal enactment, the cry at once arises: Un-American! Unconstitutional."

JOURNAL OF MAINE MEDICAL ASSOCIATION

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Editorial Comment.

“Epidemics” of Acidosis.

In the past few years, several “epidemics” of acidosis have been reported. In the present epidemic of influenza in Boston, several deaths among small children have been reported as cases of acidosis. The press at once created a “new and mysterious disease,—acidosis,” and physicians everywhere are being asked about this frightful malady. Acidosis is not a disease entity but is simply a condition of abnormal metabolism with resulting accumulation of acid in the body. We find such a condition in many diseases.

“Drops”

“Do you put drops into the eyes for examination for glasses?” is a question often asked of experts and if an affirmative answer is given, many patients refuse to have this done at all, whilst others accept it only under compulsion. Now as the proper examination of the eyes in cases associated with symptoms of the “Nervous System,” as were mentioned in a paper read at the last meeting of our Association, and as little if anything in this direction was brought forward in the discussion, the proper sort and use of “Drops” for a correct diagnosis of the refraction for the cure of nervous symptoms should once more be presented to the profession. For, without being so dogmatic to assert that all cases of disease of the nervous system are due to uncorrected eye strain, it is undoubtedly true that innumerable patients are treated in vain with drugs, electricity and surgical operations and fitted improperly to lenses, because they refuse the best means for making an exact diagnosis of their refraction with “Drops.”

The great objection to this means of diagnosis has always been the persistence of an enlarged pupil and paralysis of the accommodation for several days, much to the discomfort of the patients. It is our duty one more, therefore, to claim that the use of "Drops" is invaluable, but that there is no longer any excuse for the use of atropin, which acts as just mentioned, and often excites farther symptoms of the nervous system instead of reducing them.

We may in place of atropin, utilize discs containing each a 1/50 grain of cocaine and homatropin, and follow their use with eserin-sulphate as mentioned farther on in this note. Or, better still, we can use the method so successfully employed by Gould, which is as follows:

Make two solutions, each of ten grains to the ounce of water, of homatropin and cocaine. Mix a convenient quantity, say thirty drops of the homatropin solution, and ten of the cocaine solution. Use then, one drop of this mixed solution into each eye every eight minutes for seven times; say, 56 minutes. Then refract with lenses. When this is completed, use one drop of a two grains to the ounce solution of eserin-sulphate in water, every five minutes into each eye, three times in all. In those last fifteen minutes, the pupils are brought down to their normal size and the accommodation of the eyes stands at normal, as before the "Drops" were used at all.

Let us hope then, that this method of obtaining the exact refraction of the eyes in that class of cases commonly called diseases of the nervous system, but probably due to refractive defects of the eyes, may find support from the medical profession. Furthermore let us look to the profession as a whole to drown that senseless outcry raised against educated measurers of refraction "of putting out the sight and blurring the eyes for a week with poisonous "DROPS;" and to inform their patients of the exactitude and security and satisfaction obtained by these "drops" when properly utilized.

J. A. S.

Soft Eyeball.

D. Riesman, Philadelphia (Journal A. M. A., Jan. 8, 1916), says that he had his attention accidentally directed to this subject in a case of diabetic coma in which the eyeball was of almost doughy consistency. In looking over the literature he found that this symptom was first noticed by Krause in 1903, and a few papers have appeared since by Heine, Schutz, Lepine and Hertel, which are briefly reviewed. The soft eyeball in diabetic coma is not due to blood pressure changes and it is not an agonal symptom. Whether the ketone bodies play a part in its production is not definitely decided. In acidosis without coma it is not present, but since the acetone bodies are largely retained in coma then they may have a share in its production. Krause considers it a bad prognostic sign, but others have seen recovery with it. It is valuable, however, in a prognostic sense, though further observations are needed before we can consider it absolutely prognostic. Riesman found it in two of his three cases.

Book Reviews.

Cancer. Its Cause and Its Treatment.

By L. Duncan Bulkley, A. M., M. D., Senior Physician at the New York Skin and Cancer Hospital, New York. Paul B. Hoeber, Publisher, New York. 8 vo., cloth, 224 pages, \$1.50 net.

In this excellent little book on this most important subject, Dr. Bulkley has presented in an interesting manner, some ideas and data which cannot fail to aid one in his pursuit for knowledge concerning this dread disease.

In a series of six lectures which were prepared for and delivered to practicing physicians at the New York Skin and Cancer Hospital, Dr. Bulkley presents the results and conclusions of his years of study and observation.

Briefly, to give a synopsis of his work, I would say that it contains an excellent chapter on etiology, and a description of the nature of Cancer. In the remaining chapters, he makes mention of the frequency and geographical distribution, metabolism and medical treatment of this disease.

Dr. Bulkley incorporates in this book some important but lengthy conclusions, which for the latter reason cannot be stated here. However, this treatise on Cancer is to be recommended to all who wish for an epitomized consideration of the subject.

A. P. L., JR.

The Cancer Problem.

By Wm. Seaman Bainbridge, A. M., Sc. D., M. D., New York. The MacMillan Company, 1914.

This interesting volume of 534 pages is put forth to meet, as the author says, "A definite need for a book of ready reference, of convenient size, giving in succinct and available form a summary of knowledge concerning the subject." Dr. Bainbridge always writes interestingly and this book is no exception to his previous literary work.

But we confess to a sense of disappointment that so little progress has really been made in the treatment, other than surgical, of that dire disease which "is increasing with alarming rapidity, and affecting even younger and younger ages" and which if not checked, bids fair to exterminate mankind.

A glance at section X "Non-Surgical Treatment" will show what we mean. Here are three chapters on Caustics; Physiotherapy, and Biotherapy respectively. In commenting upon the use of caustics, the author says: "Caustics have practically no place in the treatment of malignant disease where there is hope of cure" because irritation undoubtedly predisposes to the development of cancer, and treatment should be sedative and not irritative.

Again, under "Physiotherapy" he discusses the use of light as of no account except to relieve pain. The X-ray has a marked analgesic effect which lasts several days. Certain superficial growths as small squamous-celled carcinoma may disappear under its use. Deep seated cancer is not permanently benefitted, but on the contrary "growth may be accelerated and metastasis hastened." The same is true of radium, mesothorium and other radio-active substances. Rodent ulcer, keloid, angioma, naevus, verruca can all be cured by these agents; deep-seated cancer can not be so cured. Fulguration, electro-coagulation and thermoradiotherapy are worthy of further trial as some encouraging results are reported. The former is a post-operative procedure. With regard to these measures the author says, "Our results (in over 400 cases) in conjunction with thorough excision of all microscopic cancer are gratifying enough to warrant a continued trial. Electro coagulation may be used with or without a surgical procedure, and is of decided benefit in cleaning up ulcerating masses. Thermo-radiotherapy seems of benefit in inoperable cases. A detailed report of our work will be forthcoming in a short time."

Under "Biotherapy" he says, "The results described in the employment of the products of bacteria and micro-organisms in general, or in the employment of sera containing the reaction products of these organisms or their toxins, are contradictory in the extremes." "In section VI will be found a large number of new facts ascertained in the laboratory which throw out of account, as empirical, most, if not all, of the claims yet made to cure cancer by biotherapy."

The cause of cancer is still as obscure as ever. After discussing various biological and parasitic theories, the author concludes his summary with the words: "The true, or even a satisfactory working explanation of the nature of cancer, has not yet been discovered."

A glance at the bibliography will show the magnitude of the subject as the author has grappled with it. Regarding this he says: "It has been necessary to touch upon practically every phase of the cancer problem, to state theories, to emphasize facts, to review the work and opinions of those who are qualified to speak with authority, and to maintain throughout an attitude of 'suspended judgment pending proof.'"

Weil has he acquitted himself of the lash! We congratulate him upon the production of a really valuable and practical work and we commend its detailed study to our readers.

There are fourteen sections headed as follows: History; General Distribution; Statistical Considerations; Etiology; Histopathology; Cancer Research — A Resume of the World's Work; Clinical Course; Diagnosis; Possible Errors in Diagnosis; Prophylaxis; the Investigation of "Cancer Cures;" Non-surgical Treatment; Surgical Treatment; Irremovable Cancer; Institutions for the care of Cancer Patients; the Campaign of Education.

C. R. B.

County News and Notes.

CUMBERLAND.

CUMBERLAND COUNTY MEDICAL SOCIETY.

The regular stated annual meeting of the Cumberland County Medical Society was held at the Congress Square Hotel, Portland, on Friday evening, December the ninth. One hundred and thirty-six physicians were present.

The meeting was called to order by the President, Dr. H. F. Twitchell, at eight o'clock. The minutes of the last meeting were read and approved. The Secretary's report for the year 1915 was also presented.

The following new members were elected:—Dr. Wyvern A. Coombs of Westbrook; Dr. Richard F. Chase, Dr. Richard P. Black and Dr. Harold V. Bickmore, all of Portland.

The application of Dr. H. L. Jensen of Pownal was received and referred to the Board of Censors.

The election of officers for the year 1916 was next in order and the following gentlemen were duly elected:

Dr. James A. Spalding, Portland, President.

Dr. Chauncey Rae Burr, Portland, Vice President.

Dr. Adam P. Leighton, Jr., Portland, Secretary.

Dr. Stanwood E. Fisher, Portland, Treasurer.

To fill the vacancy on the Board of Censors, Dr. Frank Y. Gilbert was chosen.

Dr. Edwin W. Gehring presented a resolution in favor of the retention of Dr. Frank E. Carmichael in the office of Health Officer for Portland. Inasmuch as the recent political overturn in Portland's City Government would seemingly necessitate the removal of this capable official, Dr. Gehring and others requested the Society to recommend to the Board of Mayor and Aldermen, that he be re-elected.

There were some objections to this motion with the result that action was deferred to a later meeting. It was argued that the affair was of purely local interest and that the County Society was not called upon to make this recommendation.

Following the business meeting, the members adjourned to the dining room where an excellent banquet was served. At the close of the dinner, we were treated to one of the very best papers which has been presented before the Society.

Dr. Samuel W. Bandler, Professor of Gynecology and Attending Surgeon in the New York Post Graduate School and Hospital, read a paper, the subject of which was, "Some Problems in Obstetrics—High

Forceps, Cæsarean Section and Pituitrin." It was a most interesting and practical offering and it created a lengthy discussion.

The next meeting will be held Friday, February 11th at the usual meeting place. It is expected that Dr. Robert L. Dickinson of Brooklyn will be the speaker.

ADAM P. LEIGHTON, JR., M. D.,
Secretary.

PORTRLAND MEDICAL CLUB.

First meeting of year held at Columbia Hotel, Jan. 6, 1916, 22 members present. There were several interesting case reports.

Dr. Chase, Cancer of Pylorus.

Dr. A. P. Leighton, Jr., Post-puerperal Dementia praecox.

Dr. Burrage, Asthma, probably of syphilitic origin.

Dr. Driscoll, Typhoid, with peculiar eruption on face.

The paper of the evening, "The Allen Treatment of Diabetes" was read by Dr. Harold Bickmore. He said, in part:

"The so-called Allen treatment of diabetes is the treatment described and recommended by Dr. F. M. Allen of the Rockefeller Institute. The first step is to have the patient go to bed and fast till glycosuria has been absent for 24 hours. The duration of the fast varies from 3 or 4 meals up to 8 days. Alcohol may be given in small doses every 3 hours as a food which does not cause glycosuria. The starvation does not produce coma, so an alkali is rarely used. Two drachms of sodium bicarbonate may be given every three hours if there is much evidence of acidosis. Any amount of water is allowed, also one cup of tea or coffee daily. After the fasting period is over, vegetables with a low percentage of carbohydrate are given first, and the amount and percentage are increased till sugar appears which is checked by a fast day. Protein in the form of eggs is next given and then meat is added gradually. A moderate amount of fat may be given from the start but the amount given daily should never exceed 200 grams. Protein intake may be increased more rapidly than the carbohydrate but an excess of it is an important cause of glycosuria. The patient has to be instructed in controlling his own condition, through his diet, body-weight, and testing his own urine. Any trace of glycosuria is a signal for a fast day with or without alcohol. It is important that the patient remain below his former weight. A number of clinicians have reported that the immediate results of the Allen treatment are much more favorable than under former methods. As to remote results and ultimate prognosis longer experience must decide. Two conclusions seem justified at the present time: (1) that this treatment removes glycosuria and acidosis more quickly and surely than has been the practice heretofore, and (2) that patients do better when these conditions are removed than when they are allowed to continue."

Paper discussed by Drs. Thayer and Burrage. Meeting adjourned
9.15 p. m. CARL M. ROBINSON, *Secretary.*

FRANKLIN.

The annual meeting of the Franklin County Medical Society was held at the Masonic Club Rooms, Farmington, Dec. 3d, 1915.

The following officers were elected for 1916:

President — Dr. A. J. York of Wilton.

Vice President — Dr. F. B. Colby of Rangeley.

Secretary and Treasurer — Dr. G. L. Pratt of Farmington.

Delegate to the Maine Medical Association for two years — Dr. O. B. Head of New Sharon.

Censor for three years — Dr. C. W. Bell of Strong.

Two interesting papers with reports of cases were read by Dr. H. S. Pratt on the "Treatment of Sciatica by Deep Injections" and Dr. J. W. Nichols on the "Starvation Treatment of Diabetes."

G. L. PRATT, *Secretary.*

HANCOCK.

The annual meeting of the Hancock County Medical Society was held at Bar Harbor, Dec. 15th, at the residence of Dr. Geo. R. Hagerthy. The following new officers will serve for the ensuing year:

President — Dr. C. C. Morrison, Bar Harbor.

Vice President — Dr. H. B. Webster, Castine.

Secretary and Treasurer — Dr. G. A. Neal, Southwest Harbor.

Censor — Dr. R. G. Higgins, Bar Harbor.

The literary program consisted of an address by the President, Dr. J. H. Patten of Bar Harbor, who reviewed the work of the society for the past year, and outlined some new subjects and work for the coming year.

Dr. Geo. R. Hagerthy next read a paper on "Placenta Praevia." His text showed that this is a more common occurrence than it is generally supposed.

"Medical Fads and Fallacies of Doctors and Laymen" was the title of a humorous paper by Dr. G. A. Neal of Southwest Harbor. The writer reviewed some of the obsolete treatments and etiologies, and then told some of the prevailing ideas and superstitions still existing among laity.

Dr. Ernest Hart, a retired English army officer, who was present, gave an enjoyable and instructive talk on Red Cross work in England and Russia.

Members present were Drs. R. W. Wakefield, C. C. Morrison, J. H. Petten, Geo. A. Phillips and Geo. R. Hagerthy of Bar Harbor; Dr. H. B. Webster of Castine and Dr. G. A. Neal of Southwest Harbor. As guests, the members of the local Board of Health were present and several business men of Bar Harbor. After the literary exercises, Dr. Hagerthy led the way to a delicious buffet lunch.

G. A. NEAL, *Secretary.*

PENOBSBOT.

The Penobscot County Medical Association held its regular monthly meeting at the Bangor House, Tuesday evening, December 21, 1915.

Dr. E. B. Sanger, President, presided, and a short business meeting was held at seven-thirty, at which the following members were elected:

Dr. W. B. Trickey, Pittsfield, Me.	Dr. G. I. Higgins, Plymouth, Me.
Dr. Allan Woodcock, Bangor, Me.	Dr. J. J. Sewall, Newport, Me.
Dr. E. P. Goodrich, Winterport, Me.	

The applications of Dr. Carl R. O'Brien and Dr. Roy A. Thomley, both of Bangor, Maine, were presented and referred to the board of censors.

After supper, Dr. John T. Bottomley of the Carney Hospital of Boston, gave a paper upon the "Significance of Jaundice," which was a revelation, and as one of the members expressed it: "He never knew that the symptoms of jaundice meant so much." This was followed by a lively discussion in which practically everybody participated. Dr. Bottomley was much gratified with the discussion.

The following were present:

Dr. Lester Adams, Bangor, Me.	Dr. W. P. McNally, Bangor, Me.
Dr. D. A. Robinson, Bangor, Me.	Dr. Daniel McCann, Bangor, Me.
Dr. A. J. Bradbury, Old Town, Me.	Dr. E. N. Mayo, Orono, Me.
Dr. Wm. Ellingwood, Bangor, Me.	Dr. J. R. Varney, Old Town, Me.
Dr. J. F. Cox, Bangor, Me.	Dr. W. E. Fellows, Bangor, Me.
Dr. J. A. Lethiecq, Brewer, Me.	Dr. E. E. Brown, Bangor, Me.
Dr. H. M. Chapman, Bangor, Me.	Dr. W. C. Mason, Bangor, Me.
Dr. F. D. Weymouth, Charleston, Me.	Dr. B. L. Bryant, Bangor, Me.
Dr. C. H. Burgess, Bangor, Me.	Dr. A. H. Twitchell, Old Town, Me.
Dr. G. E. Landry, Old Town, Me.	Dr. W. M. Nason, Hampden, Me.
Dr. S. N. Marsh, W. Enfield, Me.	Dr. Harry Osgood, Bangor, Me.
Dr. H. L. Robinson, Bangor, Me.	Dr. J. P. Russell, S. Brewer, Me.
Dr. W. L. Hunt, Bangor, Me.	Dr. J. F. Starrett, Bangor, Me.
Dr. H. F. Quinn, Bangor, Me.	Dr. M. C. Maddan, Old Town, Me.
Dr. P. T. Haskell, Bangor, Me.	Dr. H. J. Milliken, Bangor, Me.
Dr. C. P. Thomas, Brewer, Me.	Dr. E. M. Marquis, Old Town, Me.
Dr. J. B. Thompson, Bangor, Me.	Dr. C. M. Thomas, Brewer, Me.
Dr. H. T. Clough, Bangor, Me.	and
Dr. W. E. Whitney, Bangor, Me.	Dr. R. V. N. Bliss of Bluehill, Me.
Dr. H. H. Crane, Bangor, Me.	Dr. H. D. McNeil of Bangor, Me.
Dr. E. B. Sanger, Bangor, Me.	were present as invited guests.

PERSONAL NEWS AND NOTES.

Dr. E. E. Holt of Portland has just returned from the World's Fair at California.

Dr. Wm. P. McNally of Bangor has returned from a visit to Montreal.

The services at the Eastern Maine General Hospital changed Christmas day: Drs. Sanger and Thompson succeeding Drs. Robinson and L. S. Mason on the surgical service, and Dr. McNally succeeding Dr. G. M. Woodcock on the medical side.

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*NERVOUS DISEASES AND THEIR RELATION TO THE EYE.

BY EDWARD W. TAYLOR, M. D., BOSTON, MASS.

Mr. President, Ladies, and Gentlemen of the Society:—

The subject which I partly chose myself, and which was partly suggested for me to read this afternoon, is manifestly a large one and one upon which I can simply touch in some of its most obvious sides—The Eye and the Nervous System. One might, of course, devote many hours to this subject and then not begin to exhaust its possibilities. I wish, however, this afternoon in the time at my disposal to bring out certain points which seem to me to be of very great and increasing importance, both from the standpoint of the neurologist and from the standpoint of the ophthalmologist, and also from the standpoint of the general practitioner.

In the first place it has been very properly said that the eye is the only part of the brain which is visible to the eye. This idea I think should be very definitely appreciated; as a matter of fact it is perfectly true. Of course the eye is an outgrowth of the brain, and develops in a very different way from most of the other cranial nerves; and, in consequence of this fact, may be properly regarded as a part of the brain. Therefore, its diseases (some of them) and the diseases of the brain are in certain respects practically identical. This also brings out the fact very definitely that if

* Read before the Maine Medical Association, June 10, 1915, at Poland Springs, Maine.

we are dealing with the eye, we must of necessity deal with the rest of the nervous system; and, if we are dealing with the rest of the nervous system, we must, of course, deal particularly with the eye. This brings me to the first point that I wish to definitely make this afternoon in these somewhat informal remarks, and that is, that we as neurologists, or as practitioners of medicine in general, should have a very much more definite and complete knowledge of the eye, and of certain of its disorders, than we as a matter of fact do have. I think I am perfectly fair in stating the converse proposition that ophthalmologists also should have an intelligent appreciation of the nervous system and of underlying conditions which so often are the cause of many of the disturbances of the eye itself. It has been the custom in teaching this subject for a good many years to insist absolutely upon an examination of the eye,—first a routine examination in general and internal medical examination. As a matter of fact my impression is that the eye is relatively rarely examined by practitioners as a routine, although it is the easiest organ to approach, and although certain facts regarding it are of the utmost significance from a diagnostic standpoint. I think you will all agree that it is too often overlooked in dealing with the general subject of medicine. There seems to be no reason in dealing with this matter why we should not teach medical students, and why we as practitioners should not always examine certain features about the eye, and particularly, of course, I refer to the pupil, which is manifestly before you. It is very easy to examine and it can be done in a very short space of time. As a matter of fact the reason it is not examined more often is the fact that it is not properly interpreted. I was very much impressed some years ago in having a patient come to my office who manifestly had locomotor ataxia,—so manifestly that he had difficulty in walking across the floor. I inquired into his history in general. He said that he had recently been examined for life insurance and had passed perfectly well. Now it was manifest to anybody with the slightest knowledge of the subject that he was in a fairly advanced state of tabes. I asked whether any special examination had been made of his eyes and knee-jerks and so on, and he said no. I was so much impressed by this fact that I asked one of the life insurance examiners in Boston about it, and he said—this was a good many years ago—"Our life insurance examiners are not required to examine the pupils or the knee-jerks." I asked him why, and he said because they are unable to interpret their results; that so many examinations would be, or are, made when opinions are given regarding pupils, and so forth, that life insurance companies con-

sider it safer not to ask for this examination at all. Now that seems a very extraordinary state of affairs,—one which I do not wish to go into, but which illustrates how small a knowledge is possessed of these to my mind fundamental matters,—if our large insurance companies are not willing to trust their examiners in the determination, for example, of an Argyll Robertson's pupil in locomotor ataxia. Now, gentlemen, I think we ought to insist ourselves, and impress on our students, that pupillary examinations, at least, should be made in all cases. These pupillary examinations are simple, of course; I am speaking from a neurological standpoint now. Repeated examinations are required, but there is no reason why such examinations should not be made of every patient who presents himself at your office, or your clinic, or wherever it may be. In the first place, it is easily determined whether one pupil is larger than the other, as may be the case in trouble with the sympathetic system. One may easily determine the size of the pupil as compared with what the normal would be; but a somewhat contracted pupil we would be very apt to overlook. Another point is the regularity or irregularity of its outline, undoubtedly a matter of very great importance—of how great importance I am not prepared at this moment to say—but at least of considerable importance in diagnosis of the important syphilitic lesions of the nerves. In the third place, we can easily examine the pupillary reactions. We ought all to be able to examine the reaction to light and the reaction on accommodation. One need not in practical every day work distinguish between the accommodative responses and the convergence responses; but, so far as light is concerned, and so far as accommodation is concerned, we ought always to make that examination for the reason that there is perhaps no physical sign in medicine more definite than the so-called Argyll Robertson's pupil, a sign which it seems to me every practitioner should be able to determine with comparatively little experience, namely: the failure of the response of the pupil to light, with a retained accommodative response occurring in practically only two diseases, viz.: tabes and dementia paralytica, in other words, both indicative of those two syphilitic diseases. Of course, as to syphilis, with our modern more exact methods of research, its presence can easily be shown; and nowadays we are hoping at least, if not entirely believing, that some definite results may be obtained by the salvarsan treatment. However, in the early stages of tabes, it behooves us, it seems to me, to direct ourselves at least to the examination of this simple reflex. The question of the examination as a routine measure is, of course, a somewhat more difficult matter.

This, however, has been rendered relatively simple in the last few years by the introduction of the electrical ophthalmoscope, with which all the ophthalmologists present are entirely familiar. A most admirable instrument is also the recently devised electrical otoscope. These instruments, to my mind, bring within range of all of us these examinations which only a few years ago were supposed to be within the province of the specialist alone.

Now the determination of fundus changes is not difficult. I think I may say with a fair degree of accuracy that all of our students who graduate at the end of the fourth year certainly are able easily to detect a choked disc, and also optic atrophy, two of the main conditions which are important from a distinctly neurological and general standpoint. Now if we can train our men to determine pupillary changes, and interpret them properly, and also fundus changes, we have, I think, instructed them admirably. I sometimes tell the men that, if they can interpret pupils and knee-jerks, I shall be satisfied with what they have learned. That, of course, is an extreme statement; and yet, if you analyze it, I think you will agree that with that knowledge absolutely and definitely established in one's mind, a long step has been taken toward the diagnosis of these conditions.

Now in the time at my disposal—and I do not propose to take a great deal of your time—I wish to go a little further into detail regarding some of the relationships between the eye and nervous disorders in general. As I said a moment ago, a separation of these two conditions cannot be absolutely made. The ophthalmologist approaches the matter from the side of a special organ, externally as it were, from the eye standpoint, whereas the neurologist approaches it, if I may so say, from the brain standpoint. Whether one is more fundamental than the other, I do not wish now to discuss; but in any case we should approach the matter, all of us, from the broadest possible standpoint. I wish very briefly, therefore, to speak first of certain organic relations, if I may so express it, of the eye and the nervous system; and, secondly, of certain functional relations, to which I shall devote rather more time, particularly perhaps taking up (which I think is of interest to all of us) certain of the questions about the much discussed eye-strain theory and the relation of these so-called reflex phenomena to more or less fundamental disturbances in the nervous system. The importance of the eye in relation to diseases in general need only be mentioned, of course, before this audience to be very definitely appreciated. How often might we, if we had knowledge, make our first diagnosis possible of nephritis from a consideration of the fundus; and

yet I suppose that nephritis is very rarely diagnosticated from the fundus alone. A certain number of cases are due to the fact that the fundus is not properly or completely examined in such constitutional diseases as nephritis and diabetes and so on. Of course the fundus changes are very definite. I should say that it is not to be expected that those of us who are not ophthalmologists should be skilled in detecting the finer changes in the optic disc; but the coarser ones certainly should be at our disposal.

In the second place, how often do arterio-sclerotic and general vascular changes, which constitute the menace of advancing years, —how often may such changes in the eye be determined earlier than in other organs of the body! Certainly, variations of blood pressure are not an absolute criterion, at least of changes in the arteries. Certainly, the palpability of arteries is indefinite; so, that if we can have any further indication of the trouble going on in the nervous system, or in the body in general, we should by all means seek that source of information, and that is to be found not infrequently in the fundus, where again we have an arrangement of vessels which are absolutely in sight, as vessels are not in sight in any other part of the body; so that the slightest changes in these vessels may be determined with a fair degree of accuracy.

In the third place, and, of course, very important from every point of view, are the general conditions of increased intracranial pressure. I believe it is now generally accepted, following Cushing especially, that choked disc, or what we used to call optic neuritis, papillitis, is always a result of increased intracranial pressure.

Just a word about the terminology here! Again it seems desirable to follow Cushing in his classification of choked disc as a term inclusive of all the conditions met with as indicative of intracranial pressure. He has given up the term, I think, of optic neuritis, and rather prefers to say a greater or lesser degree of choking, instead of using the term as an indication of slight degree of swelling. Therefore, in what little I shall have to say this afternoon, I shall use the term "choked disc" as inclusive of the various conditions, slight or extreme, which are due to increased intracranial pressure. Now the enormous interest, gentlemen, which has been excited in the last few years, again largely through the work of Cushing and others, in intracranial growths, in other words, in the broad subject of intracranial pressure, has again brought the nervous system very much more closely into relation with the eye, or the neurologist in closer relation with the ophthalmologist, than ever before. It has become a matter of extreme importance to determine whether or not such pressure exists early, because

it has been pretty definitely established, I think, that when a disc has begun to choke, when signs of pressure are visible in this delicate mechanism of the fundus, it is very desirable, if the sight is to be saved, to relieve that pressure. It is, therefore, manifestly important to determine whether the pressure exists. Now headache, vomiting, and alterations perhaps in the mental state, as well as other signs of intracranial trouble, may be entirely in the background, and tumors or new growths, or, speaking more generally, increased pressure may be, and often is, only determined in the early stages by the appearance of the fundus. Now in this case we have again a very important relationship, which is growing increasingly important with the possibility of relieving pressure, if pressure may be relieved, and if thereby eyesight may be saved. Particularly since lifted brain operations are possible, a palliative operation is often indicated in these cases. However, that is another subject which I have not time to go into. But if you are to save your eyesight, which is the point that concerns us particularly, it is very desirable that that operation should be done long before the disc has attained any degree of swelling, in other words at its earliest stages; otherwise you will get blurred vision or disturbances of greater or less degree. It is a tragic situation which we are meeting with continually, though fortunately not so often as a few years ago, of a patient, otherwise reasonably comfortable, with possibly a more or less stationary process, but totally blind, owing to the fact in the first place that the incidents of the blindness were not recognized and nothing was done. I remember some years ago of seeing an operation upon a totally blind person for cerebello-pontine tumor, a difficult operation, but done time and time again with absolute success,—a tumor easy of removal if it can be uncovered, and if it lies, as it so often does, externally to the pons and the medulla. In this particular case the patient was totally blind. As I remember it, the tumor was dissected and removed in a large measure, but the patient remained, of course, hopelessly blind.

Now, then, it seems to me that we as physicians, and as ophthalmologists, ought to look at this matter very broadly, and ought to do our utmost in educating ourselves to the recognition of these conditions, or, at least, of sufficiently recognizing them to have an expert opinion thereon. The disturbances of the intracranial contents which are of particular interest to the ophthalmologist are of an organic nature. These, unlocalized, cause a pressure, possibly hydrocephalus, from a very slight cause,—usually, of course, new growth. Now, an unlocalized new growth—and unfortunately many of them are unlocalizable in the brain—permits of relief of

pressure, but does not permit, of course, of absolute and complete cure. However, our experience is now sufficient to show that if a patient be relieved of the symptoms of pain, headache, vomiting, and of the very distressing symptom of failing vision, he may live six months or a year, or a more or less indefinite time, in considerable comfort before the fatal ending comes. We often hear experts say, "What is the use of operating in these cases," which seems both cowardly and foolish a position to take. Our work, so far as I can make it out, is largely the relief of symptoms. We certainly have got to die, but we all by every means in our power try to prolong life, both as physicians and as laymen. It seems to me that if we have a patient who is suffering intensely, and we can prolong his life in comfort for a period of six months, we are doing our duty to advise that that prolongation of life be attempted, at least. Therefore, in these unlocalizable growths, tumors of this sort, the early discovery of choked disc is, of course, of vast importance.

The focal lesions which interest us at the present moment are the tumors lying in the course of the optic nerve, or optic tract, and particularly the extremely interesting group of tumors set out by Cushing's work in the pituitary fossa. Now, again, speaking of the examination from a practical standpoint, it is extremely interesting to make the examination for hemianopsia. The termination of visual fields I believe to be a difficult task, only to be interpreted with caution; but the real visual field is a very easy thing to determine, and that may be done with every patient simply by asking him to fix his gaze on the examiner, to look you in the eye, and then bring your hands into his visual fields from behind his head forward. Complete hemianopsia may without the slightest question be determined in that way. Now what does complete hemianopsia mean? How many practitioners of medicine know definitely what the significance of hemianopsia is, or what lesion it implies? Of course a hemianopsia means, in nearly all cases, a lesion in the optic tract or in the occipital lobe behind; but it frequently occurs in the ordinary hemiplegias, or the hemiplegias which occur as the result of lesion in the occipital area. These give rise to disturbances of the hemiplegic type. Also various types of hemianopsia, or disturbance of the visual fields, occur as the result of pituitary growths. It has become, not quite, but almost a routine to have X-ray photographs of the pituitary of the skull made, certainly in all questionable cases involving the brain—intracranial pressure—and certainly in all the cases suggestive of disturbances of internal secretions, which you have had I think in detail from Dr. Bainbridge, to see if there are changes in the

pituitary fossa. As many of you know, this is a region of the brain which is peculiarly susceptible to X-ray photography; the sella turcica shows with remarkable distinctness. Now there we have again the means of determining the possibility or probability of tumors of the pituitary. Tumors of the pituitary, if you will remember the anatomy, lie in close proximity to the chiasm, the optic chiasm crossing. The pituitary lies behind it, and a growth on the pituitary upward or laterally is inevitably bound to impinge on the optic tracts and upon the internal portions of the optic tracts, giving thereby, without going into detail, a hemianopsia of the bi-temporal variety, namely, a loss of vision in the lateral fields. Now here is another point which seems to me of importance, and this, gentlemen, is not only important in relation to neurology, or in relation to ophthalmology—I sometimes wish we could do away absolutely with all these distinctions—but is important to practitioners of medicine. We are dealing now a great deal, as you know, and unquestionably are going to deal more in the next few years, with symptoms of pituitarism, with symptoms indicative of a hypopituitarism, or a sub-normal action of the pituitary gland. Now in these cases indications of that are to be found unquestionably by the X-ray in the pituitary fossa. This, however, may be determined without an X-ray by the presence of this somewhat unusual, but increasingly frequent as we investigate it, type of loss of visual field, namely, the bi-temporal loss of the visual field, or bi-temporal hemianopsia, so-called. I speak of that in passing simply as another point of contact; another point on which we all ought to come together, and where we all ought to stand on a common ground of understanding in these matters.

Another point which I will just mention in passing is the question of nystagmus, again a perfectly simple and accurate phenomena, namely: the oscillation of the eye abnormally, either on direct fixation or on lateral fixation. This question of nystagmus has interested us in relation to the disease, insular sclerosis; but now we have an added interest in nystagmus on account of the disturbance of the auditory apparatus in connection with the ocular muscles. In other words, by the extraordinary series of tests devised by Barany by means of irrigation of the external ear, extraordinary nystagmoid movements are produced, depending on whether the lesion lies in the pons or not. I will simply say in passing that nystagmus is a matter of great interest, which again bears out my general contention that we must look at these matters broadly to determine the significance of nystagmus. A study of the eye alone would lead us tremendously astray.

Now a word about syphilis! Of course, the eyes are manifestly very markedly affected by syphilitic disease, either in its so-called tertiary form or in its late tertiary manifestation in the form of tabes. This leads me to say a word or two about the paralysis of muscles; about strabismus. Here, again, practitioners ought to be able to determine with some definiteness the significance of diplopia. If a patient suddenly has an inequality of the ocular muscles to such an extent that strabismus results, it follows as a matter of course that something definite has happened, and something definite which lies outside of the rolling of the eye, that lies distinctly in the deeper portions of the nervous system in a great majority of cases. Therefore simple tests of the ocular muscles are possible, which may be carried out simply by asking your patient to look to the right, and to the left, and up and down, to see if the muscles work in together as they should. Here, again, the test may be carried out with the greatest possible ease and with the absolute expenditure of a very small amount of time. These ocular palsies, when they occur, are supposed to be due in a great measure to syphilis. What I wish to say in this connection—and we are interested in this because we stand in close relation in Boston to the Massachusetts Eye and Ear Infirmary, where naturally very many cases go and are referred to our department of the Massachusetts Hospital, so that we have a great opportunity of studying these cases both from the ophthalmological and the neurological standpoint—now what we believe is this: that although many of these conditions are due to syphilis, it is a great error in practice, and one which is being made and will continue to be made, I fear, the prescribing of iodides and mercury, and so on, if these conditions are suspected. One of the most unfortunate fallacies in medicine is the idea that nearly everything relative to the nervous system, and many conditions of the eye, is experimental. The point I wish to make is just this: Find out whether you are dealing with syphilis or not. There is no possible excuse at present for dealing with a condition which you are not sure of, for treating a condition as syphilis when you do not know whether it is syphilis or not; especially since you can find out. In other words, in all these conditions a Wasserman reaction should be taken, not only a Wasserman reaction of the blood, but a Wasserman reaction in the spinal fluid, and particularly a cell count made of the spinal fluid, before we can say definitely with what we are dealing. Therefore in your cranial palsies this is very desirable, whether you are dealing with hemiplegia or are dealing with a syphilitic lesion. That should be

done, as I say, by these modern and apparently increasingly exact tests.

We have been interested in a series of cases of early optic atrophy in children, a very tragic situation, in which children of from ten to fifteen years of age are affected with a progressive atrophy of the optic nerve. Now of course the assumption is syphilis; but our investigation has shown that in a great many of those cases we find no evidence whatsoever of a syphilitic lesion, and we are therefore forced to assume that the cases are not syphilitic, and so we do not pursue the active syphilitic treatment which otherwise might be indicated. In passing, for the interest of those who may be ophthalmologists here, and others perhaps as well, I would like to say that the early idea that salvarsan increases optic atrophy does not seem to be borne out by our experience. Although we have given it in a number of such cases, we have found no evidence of increasing loss of vision as a consequence; and in some cases we have felt possibly there was a slight degree of improvement.

I must hurry on now, gentlemen, and say a few words—and I must make them brief—regarding certain of the functional relations of the eye, which, after all, as I said at the outset, are probably of more interest to you than these organic relations. For many years we have been hearing of eye strain as a cause of nervous diseases, as a cause of neurasthenic states and various disturbances, ranging all the way from epilepsy and chorea down to the simple ocular headaches which we all recognize. Dr. Gould, of Philadelphia, in his eye clinics, you will remember, maintained, with a great degree of plausibility apparently, that most of the peculiarities which we speak of as neurotic were in a large measure due to eye strain. He found these disturbances in the eye and attributed the peculiarities of the individual to them. Of course Dr. Stevens' work and Dr. Ranney's work, which have been very widely heralded and very widely criticized, come in this same general category. Now of course it is not for me to say that this theory is untenable. I believe that, like most theories, it is in a measure tenable.

Now let me take up certain matters more specifically in regard to this eye strain theory! There is no condition presumably in which eye strain is more blamed than in headache. Headache, in many persons' minds, must be in some way due to disturbance in the eye. Now is this justified? Of course, as we know, the eye is a much overworked organ; and I would like to say just here that I can conceive of disturbance of a considerable degree of severity arising in perfectly normal eyes. It does not seem to be necessary

to demonstrate refractive or other error in the eye to say that a certain disturbance like headache is caused by the eye. I believe headache may occur by the over-use of perfectly normal eyes. In other words, that is the only method, if I may so express it, that the eye has of registering a protest. If I held my arm out, for example, for twenty minutes, I would suffer the most excruciating pain. If I held my head up for an indefinite length of time, say forty-eight hours, I would have a very distinct occipital pain. If I use my eyes indefinitely, certainly there will be a reaction on the nervous system as a protest. In this sense we may have eye strain, as we have muscle strain or any other sort of a strain, resulting from the abnormal use of a perfectly normal eye.

Now let me take up briefly the question of headache. Headache is a symptom common, so far as I know, to practically every disease. That may be an exaggeration, but certainly it is a symptom in many constitutional diseases like nephritis, in all infectious diseases for example, and various other febrile conditions with which we are all familiar. We look for headache due to all sorts of disturbances of the stomach, of the gastro-intestinal tract, in all sorts of disturbances of the brain, characterized largely by the question of increased pressure. In this little book by Auerbach, which I think you would find rather interesting in connection with this general subject of headache, he names twenty varieties of headache in his index. I will also say that in this book he mentions hardly at all the influence of the eyes in producing such headaches, there being but a small section on that topic. Now that, I think, is going much too far in the other direction; but it simply indicates how we ought to get together, and how from the neurological or medical standpoint the eye is forgotten. I am quite aware that the ophthalmologists are reproaching us for that very thing. They say if we knew more about the eye, we would attach more importance to its reflex activity in producing these conditions. Now we hear continually that migraine, the commonest of all headaches, is an eye strain headache. We all have headaches in which the relief of eye strain has apparently relieved the pain or headache of migraine. At the same time, I do not suppose that anybody who knows about migraine will maintain for a moment that migraine is due to eye strain. Migraine is a type of disturbance perhaps some will say the most hereditary of any disease we have to deal with, and undoubtedly it is due to a disturbance which can best be explained as cerebral pressure. Certainly it is going too far to maintain that if one out of twenty cases of such headache is relieved by glasses, therefore migraine is due to such causes; and there again

I wish to maintain the broader attitude that, while migraine or headache is due in some instances, or may be relieved, by the use of glasses, yet that can by no means be regarded as a universal theory. In this connection, however, I wish to speak of a very interesting investigation that Dr. Walton made some years ago, in which he inquired of forty-one individuals who were blind from infancy, or blind immediately after birth, practically blind congenitally, and found that eighty per cent. of those persons had never had any headache at all. Of eighteen who were blind later in life, he found that only five were free from headache, showing the great frequency of it. Of one hundred in good health, only thirty-one per cent. had never suffered from headache, and seventeen of those had typical migraine against no cases in the congenitally blind. That is a very interesting research so far as it goes; but, of course, it does not go far enough. In the first place, we should have to define more definitely what we mean by migraine, and we should have to go over thousands of cases, instead of forty, before we could reach any generalization; but it does show, I think conclusively, that the blind are not so subject to headache as it may seem.

A day or two ago I saw a case of a young man, a doctor, thirty-five or six years of age, whose head had ached for ten years, a very distressing occipital headache, which has not, however, prevented his working, but which has been a serious handicap. All methods of treatment had failed, and he has been for four or five months with Dr. Standish. Dr. Standish writes me that he cannot find the slightest evidence of any disturbance with the eye to account for the headache, although he feels perfectly convinced that the eye must be the cause. I have another case in mind of a woman whom I saw a good many years ago, who looked at me with normal eyes, and as she continued to look I saw that her eyes gradually spread. She had intense headache, and the prescription of glasses for that serious muscular error immediately removed her headache.

Now, gentlemen, my time is practically gone, so that I cannot say much about epilepsy. Epilepsy, of course, we cannot say is due to eye strain; that would be a preposterous statement it seems to me, although in certain instances it may be excited into activity by eye strain. Chorea has been considered as possibly due to eye strain. Here, again, I think we are going much too far. The various neurasthenic states and conditions of hysteria the time does not permit me to go into at all. I will simply say that we must define hysteria before talking about hysterical conditions. Yesterday I was reading a work on the nervous system in which the word "hysterical" is used as an adjective—the "hysterical pupil" or the

"hysterical manifestations of the visual field," and so on. Now, gentlemen, we have got to know what we mean by hysteria. Hysteria is not what we used to think it; it is an extraordinarily complex neurosis of some sort. We should not state dogmatically that this or that is an hysterical state. We must not suppose that all the world knows what hysteria is for no one knows what it is; and for pages, chapters and volumes to be written on hysterical eye is an absurdity.

In conclusion let me make the following general statements. We must all admit the enormous importance of the eye. Certainly no one organ, no nerve in the nervous system, is so important as the eye. It is, however, necessary to look at the whole problem. It is very easy to explain symptoms from any point of view. With a little mental ingenuity one can explain anything from an eye strain. Likewise I think one can explain almost anything from internal secretions. I heard Dr. Collins read a paper in New York a few weeks ago in which he was inclined to attribute all these disturbances to internal gland secretions. That was his particular point of view. Certainly enteroptosis has been coming into the field lately and various visceral disturbances; and all that is implied in the mere psychological attitude toward these problems has come into the field and demands attention. It must furthermore, gentlemen and ladies, be realized that the relief of a condition does not demonstrate its cause. Let us get away from that fallacy. Because you relieve the migraine headache by a certain treatment, does not mean that the eye is fundamentally the cause. In other words, we all need to get on to the broader plane. We need to do away as far as possible with these more or less false conditions, and realize that all these conditions have a deeper foundation, a foundation which we are merely touching, and as to which we have a great deal of study before us before we can arrive at any very useful generalizations. In the meantime it behooves us not to attach too much importance to any one system of practice, but to look at the field from the broadest possible standpoint.

THE PRESIDENT:—Gentlemen, the discussion of Dr. Taylor's address will be opened by Dr. Swift, of Portland.

DR. SWIFT: Mr. President, I think we all ought to feel ourselves very fortunate at having Dr. Taylor talk to us this afternoon on this very interesting and important subject. I have heard Dr. Taylor from time to time for a good many years, particularly while I was in the Medical School. I think at that time all the students felt that Dr. Taylor had a remarkable faculty of making clear and interesting all subjects pertaining to neurology, which is usually considered somewhat dry; and I think that this paper this afternoon exemplifies that very well.

I have been particularly interested in what Dr. Taylor said in regard to intracranial pressure, the choked disc being such an important sign. Oppenheim, I think, states that choked disc is present in a large majority—I think as high as ninety per cent.—of the brain tumor cases. That would leave ten per cent. of the brain tumor cases in which there were no changes found in the fundus even to the end of life. Then, of course, in the earlier stages there would be many cases in which the diagnosis would have to be made without the presence of the optic neuritis. I know that I have had the idea that the presence of choked disc was almost necessary in order to make a diagnosis of brain tumor or other cranial pressure; but I think that can hardly be so. I remember particularly one case in which there had been present in the patient for a number of years convulsions, and not very much of anything else,—a slight irritability and perhaps some change in character. The question arose whether these convulsions were functional or due to organic brain disease. Some held one idea and some the other. There was no choked disc, but at the autopsy a brain tumor was found. Then I might mention another case that I saw recently in which the conditions seem to be somewhat reversed. This was the case of a man who had suffered from excruciating attacks of headache for some months, these attacks sometimes being associated with vomiting, and the attacks occurring frequently many times during the day. In this case there was double choked disc, one side much more marked than the other. With the headache, the vomiting, and the optical neuritis, one felt surely the possibility of intracranial pressure. Later a nose and throat man was called in, and he made some local application to the nose which seemed to relieve the headache very soon. This man now, as I understand it—I have not heard from him lately—considers himself recovered. I do not know about the choked disc; I presume that has gone down also. The question arises, however, whether this is really recovery or a remission. I might say in connection with this case that an X-ray was made, and there was found an abnormality such as might be seen in pituitary tumors.

In regard to the very important and interesting question of eye strain, I think I have felt sometimes very much the way Dr. Taylor has, that, although many times headaches and nervous symptoms may be relieved, yet we could not maintain, in many at least of the neurasthenic states, that the whole thing was due to eye strain. It always has seemed to me that the ocular defects were more an expression than a cause of the nervous symptoms; that the ocular defects were merely an expression of an underlying physical imperfection, this imperfection showing itself not only in the ocular defects, but also perhaps in bad posture and other ways.

Before sitting down I would like to express my personal indebtedness to Dr. Taylor for this very interesting paper. (Applause)

DR. E. E. HOLT:—In responding to your invitation, Mr. President, to say something upon the excellent presentation of the subject of the relation of the nervous system to the eye, I can very heartily endorse all that Dr. Taylor has said. I have been studying the subject pretty closely for over forty years and have written a great deal upon it. Of course it would be impossible to say much upon this subject in the five minutes allotted to discuss it.

Formerly when a suitable light had to be provided and the art acquired of reflecting it into the eye in order to see the fundus, it was difficult to examine the interior of the eye. Now we have the beautiful electric ophthalmoscope, as Dr. Taylor has said, which furnishes its own light, and the fundus can be readily

seen by anyone capable of manipulating any instrument. With this instrument the movements of the pupil can be observed much more readily and accurately than by daylight, or even by the larger flashlight which a physician now usually carries.

A physician should make a practice of examining the eyes of his patients not only for their general appearance but for their movements and the movement of the pupils. It is only in this way that he can become familiar with the normal conditions of the eyes and be able to recognize abnormalities. Constant practice will enable him to quickly determine abnormal conditions and he will be able to interpret their meaning. This is equally true in regard to the interior of the eye. If physicians in their early practice would spend one-tenth part of the time in doing this they do in smoking, they would easily become experts in it. Dr. Gowers, of London, when I attended his clinic in 1881, examined the eyes of his patient at the beginning of his examination and dictated the conditions he found. Although he limited his practice mainly to diseases of the nervous system, he became an expert in interpreting the relations of the nervous system to the eyes, and gave us the results of his work in books which have stood the test of time and which have made him one of the world's famous physicians.

There are many instruments of precision for determining the exact condition of the eyes. If we wish to determine the exact condition of the external muscles of the eye, we use prisms combined with instruments invented by Stevens, known as the phorometer, tropometer, and clinoscope. The beautiful electric self-registering perimeter made by De Zeng enables us to map out the field of vision with great precision, not only for white, but for green, red and blue, as these colors are achromatic and are absolutely under control, so that the examiner knows whether the person examined sees them and whether he answers correctly or not. For a preliminary test as to the condition of the field of vision, the test is made by being directly in front of the patient and having him look you directly in the eyes while you move your hand from without inward, at the same time asking him to tell you whether you move your fingers or not in the different parts of the circle with the eyes for the center of it. With all these instruments of precision it is highly important that one should become perfectly familiar with the normal conditions, and this can only be acquired by constant practice, which every physician can indulge in in his early practice. When the normal conditions are known and become fixed, the abnormal ones will be quickly detected, and their interpretation will come as a sequence. For instance, if one is familiar with the normal field of vision, the abnormal field of vision like that of hemianopsia will be quickly detected; in fact, from what the patient tells you about the trouble he has, you are able to make the diagnosis without even taking the field of vision. You then have only to determine the cause of the hemianopsia.

THE PRESIDENT:—Gentlemen, the paper is now before you for general discussion.

DR. BOWERS: Mr. President, it seems to me that this very able and broad-minded paper ought to be very thoroughly discussed, as much at least as we have time for. The very broad-mindedness of it, and the scope of it, makes it impossible to discuss it in full. Perhaps some of us have thought of some particular points, and I would like to confine my remarks to the question of headaches. Of course no one to-day, even among the general practitioners, doubts the connection between headaches and eye strain. It seems that the essayist

has been exceedingly moderate in the claims he has made with reference to headaches from eye strain. I would go even farther; but it seems to me there is a reason for the eternal dispute that is always on as to how much headaches are due to eye strain. That includes the fact that most persons who go to the oculist have already taken the blue pill, they have been to the nerve specialist, and they have tried everything under heaven before consulting the oculist. A few years ago I was interested to see what proportion of the cases of headache that were sent to me were due to eye strain. A very careful examination showed that nine out of ten cases were relieved by treatment, not altogether by the fitting of glasses. I think there is where we have fallen into error again. When they come to the oculist they expect to be relieved by glasses, and glasses will not relieve all forms of headache, particularly those that are due to muscle errors and declination of the vertical axis. The essayist's report of a man who has suffered for ten years with occipital headache, and has been carefully examined by Dr. Standish, makes me suspicious that the man has a declination. I happen to know that Dr. Standish does not take very much interest in declination and that particular form of muscle error. When a man has that kind of a headache for ten years, with no other cause found for it, apparently caused by the eyes, there is a pretty good chance that it is due to declination, if not to some other form, which Dr. Standish does believe in, of the ocular muscle strains.

With regard to the question of nephritis: It seems to me that we do not find nephritis showing in the retina in as large a proportion of cases as the general practitioners generally believe; and I venture to say that, aside from those cases which are due to pregnancy, I have found albuminuric retinitis in only one case in thirty years of practice. When one does find albuminuric retinitis markedly demonstrated, it usually means that the patient is very close to death. It seems to me that that is a common symptom in pregnancy. I am repeatedly having cases sent to me by the general practitioner where albumen is found, asking me to make an examination to see if it shows a fundus. I very rarely find it, I say, except in cases of pregnancy, which I would bar out.

Now just one more point as illustrating the importance of what Dr. Taylor has brought out! I will say that within a month I have seen a case, brought in from some fifty miles out in the country. She could only count fingers for the distance of about a meter. The examination showed a choked disc, showing equally in both eyes. Her blood pressure was taken, showing 320, the highest blood pressure I have ever heard of or known of. A quart of blood was immediately taken from the patient's arm, and the following morning she had vision of nearly one-half normal. This condition had existed in the eyes for something like three weeks before the patient was brought in. It is one of the most remarkable cases that I have heard of recently, showing what high blood pressure like that may possibly do; and, while I do not pretend to say that there was nothing back of the choked disc or high blood pressure, it does emphasize what the Doctor has mentioned here, that the patient may be in great danger of immediately losing sight, and something should be quickly done. In the case I have mentioned the taking of the quart of blood brought back vision to nearly one-half normal from almost total blindness within twenty-four hours. Unfortunately, it was impossible to keep the patient in town, as she was able to go back without assistance the following day, and we have been unable to have reports from her since.

THE PRESIDENT:—Dr. Taylor will close the discussion of his paper, as he has to leave.

DR. TAYLOR: Mr. President, just a word about what the speakers have said. I was glad to have Dr. Swift call attention to the fact that we may have choked disc without brain tumor. I suppose it is a somewhat common idea that optical errors, and what not, are indicative of brain tumor. They are indicative, I presume, at least according to our generally accepted ideas, of increased intracranial pressure, which may be, of course, due to other things than tumor. What Dr. Swift said about disturbances of the eye, general weakness of the eyes that we see as neurologists not infrequently, being an expression of a more general condition, is, I think, a point well worth making.

As to Dr. Holt's remarks, I, of course, should not pretend to express an opinion contrary to his. All I meant to say was that I think an accurate study of the visual fields is a difficult matter.

Dr. Bowers I should like to thank for correcting me in regard to what I said about nephritis. He knows and I do not. I simply used that as an example without perhaps having as much knowledge as I should have on the subject. He has said that he has had only one case of retinitis in connection with nephritis cases. I supposed it would be more frequent in the experience of a general practitioner. As to headaches, I certainly should always advise the most detailed examination of the eyes; and I think I will mention to Dr. Standish what Dr. Bowers has said about his case. I am sure I do not know what to do for it.

*SAFETY FIRST IN OUR MILK SUPPLY.

All producers of milk must recognize that "safety first" cannot be dependent upon voluntary action merely. There is a public demand insisting that this great food necessity be furnished from healthy cows, procured in a cleanly manner, free from filth and disease producing germs, protected from flies and other insects and containing all the food value normally present in milk. As a consequence all milk dealers should use every precaution to guard against careless production and distribution of milk. The milk producer should make sure that his cattle have pure food, that they are not compelled to drink from streams highly polluted with sewerage or factory waste, that his utensils and containers are cleansed with pure water and sterilized, that his help be free from disease and have a knowledge of technique fit for the purpose of producing pure milk, for it is an industry no longer to be

* Read before the Portland Journal Review Club, January 28, 1916.

handled in a hap-hazard manner, but by modern, scientific methods and skill.

In looking over the records of the local Board of Health which have been kept since the City Hall fire, at which time all records were destroyed, I have found it interesting to note that at nearly every monthly meeting you will find something regarding milk conditions. Either someone has been found guilty of low grade milk or that someone had been ordered to test his cows for tuberculosis, or that unless such and such a man had a record of test in the office on such and such a date his milk would be shut out of the City. In following up these records I have been able to find where but a few cases have been pushed following these orders and in the end the whole matter dropped with no results obtained. The only reason for this that I can see from personal experience is the fact that the Board had no backing and no support in any of their efforts to improve the city's milk supply.

For various reasons, which I hope later to show, these conditions have passed from one Board to another. As is well known the financial condition of the Board of Health is its greatest drawback. Along with this it is placed, as other city offices are, more or less under political control. In most city offices salaries and appropriations, unless definitely shown where money is expended and even then in a great many cases, are looked upon as graft for officials appointed politically to these positions. A person may be appointed on the Board of Health by one political party and may have personal ideas of bettering health conditions which he will start to enforce and will be able to do so up to a certain point when he is told to hold up on this one and the other one until he reaches the point that he feels that the City does not care to have conditions improved and he might just as well serve his time and draw his salary and let things go as they have done in the past.

The Board for some years past has had a so-called milk inspector who with this duty has held the office of market inspector. It has been his duty to collect samples of milk and make the chemical analysis as to the standard. Time and again he has found milk below the standard set by the State and in coöperation with the State Dairy Inspector has placed the cases before the court with the old worn out sentence, "twenty dollars and cost and put on probation." This simply means that the man is practically told, "Go ahead and sell your milk just as you wish to. We have not time to bother with you as we have other more important matters, and the findings of the Board of Health do not amount to much, anyway." These are the conditions as I personally found them three years ago when I was appointed member of the local Board. I was told by former members of the Board that it was hardly any use to try to advance any new ideas as I would get no backing and

no thanks for my efforts. After being on the Board for some months I became interested more especially in our City's milk supply. I asked questions, secured all the information in any way that I could and after two or three months' study of the situation brought out these facts:—that the City of Portland was being supplied with an average of 15,000 quarts a day, or in other words a half pint to each person. Up to April 18, 1911, the Board of Health of the City of Portland had never had a bacteriologist. At that time Edwin W. Gehring, M. D., was appointed by the Board to serve one year. Speaking from what knowledge that I have been able to acquire no milk had been examined bacteriologically until the spring of 1914 at which time the Board voted that the milk be examined bacteriologically by the City Bacteriologist. This was carried on for two or three months in somewhat of an unsystematic way, more to give us an idea of what the milk conditions were from a bacteriological standpoint, and for the reason that our laboratory was not properly equipped to carry out any extensive milk examinations at this time. These tests more than proved to our satisfaction the actual filthy condition our milk supply was in. Among the seventy local milk dealers supplying milk to the City there were not more than three or four that were having a bacteria count as low as 100,000. The majority ranging anywhere from 1,000,000 to 8,000,000 bacteria per cubic centimeter. These samples were marked dirty, very dirty, very dirty with leucocytes in excess of 500,000 streptococci and dangerous. At the present time every milkman is being tested at least once a month.

In looking over the records of Typhoid Fever cases reported at this office since 1908 to 1915, I find the following record:—

1908	156
1909	90
1910	205
1911	62
1912	193
1913	92
1914	212
1915	138

As we all know contaminated milk has many times been traced as the source of Typhoid epidemic. During the fall of 1912 there was an epidemic of Typhoid Fever numbering 193 cases. The Board at that time felt it necessary to investigate and were able to demonstrate that the contamination was coming from one dairy farm supplying the City. Whether or no other conditions of this kind have been investigated with the exception of the fall of 1914 at which time we had in a month's time 212 cases and the Board felt that it was necessary to investigate

as the majority of these cases were along two milk routes. The Board spent three days going over the milk producers supplying these dealers. Not until the last thing on the last day were we able to locate the source of our contamination. The man would not comply with the request of the Board so that it was necessary for us to stop his milk coming into the City for sale. This man endeavored in every way to get the best of the Board, going to the State Board of Health, Commissioner of Agriculture, and the local newspapers, but was not able to overcome our orders.

Conditions had gone along about the same for the past year with the Board endeavoring to correct matters from the office by writing letters to dealers whose counts were high requesting that they call at the office at which time they were shown their record and asked to better their conditions. In nearly every case the men would claim that the fault lay with the farmers and that when they received the milk they did to the best of their ability to handle it properly. After studying the matter from different standpoints personally I became convinced of the idea that it would be necessary for us to make a thorough investigation beginning with the local dealers and gradually working out into the country and inspecting and instructing the producers. It was beyond human power to expect one local milk inspector to be able to do the collecting and testing of samples along with his other work and to carry out this idea of the general, thorough inspection.

In thinking the matter over from its various standpoints I felt that the thing to do would be to secure a man who had been trained along this special line of work who could take over the milk proposition and within a year or two years' time be able to give us a systematic way and an up-to-date report of our milk conditions regarding the dealer and producer. I talked this over with the other members of the Board, they thinking favorably of that move. We endeavored to have this proposition taken up by the City and carried out along the lines above stated, but as in the past with other new ideas it was considered unnecessary. At this time I personally had reached the point that many other members of former Boards of Health had when they felt, "What is the use? No one seems to see any benefit to be derived and nothing but an extra expense to the City." Every way you turned with the subject to anyone it was derided and ridiculed. I personally felt that my efforts and endeavors along with the statistics which I had required were worthless and would find their demise in the waste basket.

In the early part of September, Dr. Stanley P. Warren was called in to a patient who was proven to be suffering with Typhoid Fever. He found out that the family was getting their milk supply from one of

the men who the previous fall had had thirty odd cases on his milk route. He came into the Board's office and wished to know why it was that we could not shut this milk out as he felt that that was the source of contamination. I simply stated the facts to the Doctor regarding what this Board had gone through along with former Boards regarding such conditions with no support either from the City or from the State Board of Health. The Doctor made the statement that he would do something and thanks to Dr. Warren we feel at the present time, providing conditions are not taken into politics, we are in a position to within the next year and a half put our milk supply on a footing which will not only be a credit to the City of Portland but will be a standard for the whole of New England to go by. As you well know from what you have read in the local papers through the activity of the Chamber of Commerce coöperating with and at the suggestion of the Board of Health a man well qualified to carry on the work as outlined above has been secured for the City.

Since securing such a man, who is known as the Dairy Instructor, and whose salary at the present time is paid by the Chamber of Commerce who have instructed him to work for the Board of Health in coöperation with them, we have been able to begin to plan our work and work our plan. This instructor is a man with the following qualifications:—three years' training at the Worcester Polytechnic Institute in chemistry and bacteriology followed by three years in H. P. Hood and Sons' milk laboratories in Boston, followed by six years as health officer and milk inspector in Berlin, N. H., where he had been working practically along the same lines of improving milk conditions in that City as we have outlined to do here. Since his appointment he has visited thirty-four local dealers and producers with the suggestion to this Board of three producers going out of business, nine dealers changing conditions from their bottling places, the most of these having their horse, wagon and manure as well as their bottling plant in the same barn with nothing but a wooden partition separating the horse stall from the bottling room, the barn being thoroughly impregnated with ammonia smell and urine and odors from manure. These dairies and milk rooms have had a dairy score ranging from 22.6 to 92.8. The above stated conditions of combination of milk room and barn have been condemned and these men will be notified from this office and given a reasonable time in which to fix a milk room separate from their barn and unless complying with this order will be prevented from selling milk in the City.

At the fall meeting of the Cumberland County Medical Society there were appointed three physicians to act as a commission for "certified milk" provided such milk could be produced in Cumberland County.

Knowing as we did the conditions of our milk supply I felt it would be some time before we would be able to secure a "certified milk." At the same time the condition presented itself wherein I felt that we had one or two men who would be able to, providing they were willing to comply with certain rules and regulations, put out a so-called "inspected milk" to which we could certify that they were complying with the rules and regulations laid down by a Commission. After a discussion of the matter with the Board it was voted that a commission to be known as the Portland Milk Commission should be and was appointed by the Board of Health consisting of seven members. Rules and regulations governing this milk were drawn up by the Commission and passed upon by the Board of Health. This so-called "inspected milk" is and shall be a voluntary matter to the men or firm wishing to produce milk under these conditions. This does not mean that all milk shall be strictly inspected as under the requirements of the rules drawn up by the Commission. At the present time we have one man in the City producing this milk under these conditions and know of three others who are changing their conditions to comply with these rules so that by spring we will have at least four men supplying our City with this milk, at least a thousand quarts. This will be produced and delivered at twelve cents a quart. When you consider that some of the milk has been selling in the City in the past with a bacteria count of over 1,000,000, leucocytes in excess of 500,000, and streptococci, for twelve cents a quart I feel that we are beginning to have a "Safety First" in our milk supply. Comparing the bacteria count at the present time of the average dealer to what it was a year ago when the counts were running from 1,000,000 to 8,000,000 with that of the present time where they range from 2,000 to 500,000, which was set by the Board as a standard a year ago, I personally feel that it is a showing of marked improvement. The next thing is to keep this condition up and to improve upon it. We know for a certainty that Cumberland County has milk enough to supply our City and we shall endeavor if we are allowed to do so to secure this local milk supply for our citizens and know what it is rather than to have it sent to the City of Boston as more than half of it is being done at the present time.

The dealer who is alive to these facts and puts them into practice will not want for talents, but "what he hath will be increased a hundred fold."

The peddler or those who buy and sell milk on any sort of "sight an unseen" plan, would do well to have their milk tested or demand a guarantee to its standard of quality for if the present plan of the Board is carried out they will not long continue to sell milk in our City.

Let the people and the milkman's slogan be "Safety First" in our milk supply.

One hundred and fifty babies lost when the Lusitania went down was one of the results of the deed for which the perpetrators are responsible. But the loss of babies, including none who died under one year of age in Maine in the year 1914 was 1,428. Where is the responsibility for that? At least half of them should have been saved. There is work for us in that direction, too.

F. E. CARMICHAEL, M. D.,
Chairman Portland Board of Health.

P. S. Since writing this paper I have been informed that Dr. Gehring did some bacteriological work with milk at the time of his appointment with the same results that I have stated in the paper showing the conditions of the milk.

F. E. C.

*CASE REPORT.

By RICHARD F. CHASE.

The history of this case seems to the writer sufficiently instructive to warrant its report.

Mr. F. L. was referred to me September 28, 1915, by Dr. T. who had observed the patient for about one week. The patient was sixty years old, and employed on a railroad section until his visit to me. Eleven years previous he had a "stomach attack" of several weeks' duration and although having always what he considered a "weak stomach", he had not consulted a physician since his attack in 1904. His average weight has been 165 pounds, present weight 153½, loss 11½ pounds.

On September 28, 1915, the duration of his trouble, he stated, was two weeks, the onset being sudden, and due he thought to some ham eaten. Pain, there was *none*, but about one hour after eating he felt bloated, had acid regurgitation and eructations. His appetite was good, bowels regular until past week. Nausea and vomiting was of daily occurrence for the preceding two weeks.

He had never had hematuresis, jaundice or abdominal colic. Physicians' examinations revealed nothing abnormal in the heart, lungs, kidneys, liver, etc. Palpitation was negative. Movements or "bunching up" of the stomach was identified on inspection as visible gastric peristalsis.

*Presented to the Portland Medical Club.

From a test breakfast, 400+cc of gastric contents were obtained showing Free HCL=0, T. A.=40, Lactic Acid+, Blood=0.

September 30, 1915. The morning fasting contents amounted to over 400cc, consisting of three-fourths food, including prunes eaten the previous day. His weight on this day before emptying the stomach was 152 $\frac{1}{4}$, after emptying, 150 $\frac{3}{4}$.

At this date he was advised to have an operation, as it was evident that he had pyloric obstruction, probably due to cancer. Operation was advised on account of the favorable location of the lesion at the pylorus, the good physical condition of the patient and the apparent short duration of the disease. For these reasons it was considered possible that a partial gastrectomy might be done.

On October 8, 1915, exploration showed a tumor of the pylorus-metastases and dilated stomach. Nothing but a palliative gastro-enterostomy seemed advisable and it was performed. Within two months the patient died from conditions arising in the intestines, which the malignant condition had involved.

The most striking feature of this case is the short duration of symptoms, not over two weeks, although the disease had been present many months. There was complete absence of pain, an exception of course to the rule, but one must know the exceptions as well as the rule, and recognize their negative or positive value when present. By the history alone, but few physicians would have seriously considered the presence of cancer. The results of the examination indicated pyloric stenosis probably due to cancer. An X-ray examination was entirely unnecessary, it would have shown only gastric stasis, dilated stomach. It seems to the writer, that the stomach attack eleven years ago, and which lasted several weeks, was probably due to gastric ulcer and that the malignant condition developed thereon.

Much credit is due the attending physician for so promptly referring this case for diagnosis.

Baltimore, Md., has had a case of blindness resulting from wood alcohol poisoning. Testimony was admitted showing that the drink had been diluted with methyl alcohol. The jobber and the saloon keeper were jointly held responsible for this calamity. A jury has awarded \$7,500 damages to the victim, who stated that he purchased the "whiskey" from a dealer and lost his vision a day or two after he had consumed part of the two half pints.

In 1915 the legislature of Alabama, by amendment to the law, made complete provision for the specific reporting of ophthalmia neonatorum and trachoma, with provision for its enforcement by city, town and county health officials. The reporting is to be immediate on the part of physicians, midwives, nurses and parents, either upon diagnosis or suspicion that the condition exists. Failure to report is punishable by a fine of \$25.00 to \$50.00 for physicians, and \$5.00 to \$25.00 for midwives.

IMPORTANT ANNOUNCEMENT.

It is or should be an honor to present a paper before the Maine Medical Association. The Committee on Program for the ensuing year, conscious of this fact, feels strongly that only those of merit deserve a place on the program; and proposes to institute a somewhat different method for their selection from that which has hitherto prevailed,—competition.

With the single exception of the annual orator, persons will be assigned to the program whose papers conform most closely to certain requirements which the committee regards as elemental.

First.—The topic dealt with should be timely.

Second.—It should represent the experience of the writers so far as may be, or it should be a first hand account of a personal observation of the work of others.

Third.—It should, if possible, be an addition to the summary of medical knowledge.

Fourth.—Form will not be accepted for substance.

It is desirable that all papers be in the hands of the chairman of the Committee not later than March 1, 1916; and that each essayist submit the names of two members of the profession who are competent and *who have agreed* to open the discussion upon his particular topic. Bear in mind, too, the time limit of twenty minutes for all readers and five minutes for subsequent speakers.

This competition is open to all members of the State Association, irrespective of how recently one may have read. Its object is the presentation at the next session of papers of worth and, incidentally, to provide a stimulus for better and original work.

The best eight or ten papers in the judgment of the committee will make up the program, and the fortunate ones will be duly notified of their selection. It is earnestly hoped that many will avail themselves of the privilege and opportunity herewith extended to contribute to medical knowledge and to the success of our next meeting.

E. W. GEHRING,

J. F. THOMPSON,

H. E. MILLIKEN,

Committee on Program.

July 12, 1915.

Necrology.

FRANK MASON PUTNAM,
Gardiner, 1853-1915.

A delightful practitioner of medicine, in the person of Dr. Putnam, passed out of our ranks, on Wednesday, September 1, 1915, in his sixty-third year of life. Two years before that date, he was attacked with a stroke of paralysis and suffered so much at that time and thereafter, that he practically abandoned forever the practice of medicine, and spent the rest of his life amidst a lingering illness in arranging his plans for that end from which there is no escape for any of us.

Born, July 4, 1853, in San Francisco, Cal., the son of John Prince and Lucy Harris Putnam, he was taken by his parents, at a very early age, to Cambridge, Mass., where he attended for some years the common schools of the University town. He next was sent to the Little Blue School then in the height of its fame at Farmington, Me., and from there he began the study of medicine, partly in Germany, partly at the Medical School of Maine, a little at the Harvard Medical School, and he finally obtained his degree at the Dartmouth Medical School in 1878. He then settled in Gardiner, soon obtained and graciously enjoyed for about thirty years a lucrative practice and the high esteem of the people amongst whom he labored. About the year 1910 he gradually ceased to attend to active practice and went daily more and more into the care of the monetary interests which he had acquired by economy, by inheritance and by marriage with Miss Carrie Atkins, of Farmingdale, who predeceased him, and left him with a surviving daughter, Mrs. William Ginn, of Gardiner.

Twenty-five years ago, when in his active practice, I often saw Dr. Putnam in consultations, and invariably met at his hands that courtesy and that proper effacement of his own interests which such a step calls for, when the care of a patient's highest concerns are at stake.

J. A. S.

A movement is now under way to co-ordinate the efforts of the National Committee for the Prevention of Blindness and the National Committee on Prisons and Prison Labor to the extent of securing systematic medical examinations of the eyes of all prisoners in penal institutions, and also provide for them the necessary treatment or glasses. That such service is needed and most desirable has been demonstrated many times over. In Kentucky, where through the efforts of Miss Linda Neville, Secretary of the Kentucky Society for Prevention of Blindness, an inspection of the eyes of the prisoners was made to ascertain the prevalence of trachoma, it was found that a large number were in dire need of the relief which could be provided only by competent medical treatment.

BULLETIN NO. 2.

Dear Doctor:

To a friend who mailed Mr. Kipling a package of magazines, after having torn out the advertising pages to save postage, Mr. Kipling wrote: "Next time send the advertising pages and keep the rest. I can write the stories myself."

Advertising has become a necessity to readers. The advertising sections of newspapers and magazines contribute an important part of the information readers demand. The enterprising publisher tries to edit his advertising, as well as his editorial and news pages, so that all the matter will conform to his standards.

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In all these respects the State Medical Journal endeavors to render its readers a special service. We want to make the advertising pages of this Journal of special interest to you. To this end we ask you, when answering advertisements, to mention the fact you saw them in this paper. **If what you want is not advertised in THE JOURNAL, please write the editor or sign and mail this coupon.**

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Editorial Comment.

Workmen's Compensation Act.

On January 1, 1916, there went into effect in the State of Maine the Workmen's Compensation Act, approved on April 1, 1915.

As this Act is of more than ordinary interest and has certain medical features, it is proposed to give a short account of its provisions.

The beneficiaries include persons in the service of another under contract of hire except farm laborers; domestic servants; masters of, and seamen on, vessels engaged in interstate or foreign commerce; persons whose employment is but casual; officials of the state, county or town, except policemen or foreigners.

Compensation is to be paid for the death or injury of such an employee in the course of his employment by either the employer or some insurance company which carries his risk.

The principle is adopted of giving 50 per cent. compensation or half pay for a limited period.

Thus for death, the dependents of the employee received for a period of 300 weeks a weekly payment equal to one-half his average weekly wages, but not more than \$10.00 nor less than \$4.00 per week.

If the disability is total, the employee receives for the period of his total disability or, at most, for not more than 500 weeks, one-half his average weekly wages, but not more than \$10.00 nor less than \$4.00 per week, or \$3,000.00 in all.

If the disability is partial, the employee shall receive for the period of his partial disability or, at most for 300 weeks, one-half the difference between his average weekly wages received before the

injury and the average weekly wages he is able to earn after the injury.

A schedule of injuries is inserted with this introduction:

SECTION 16. "In cases included in the following schedule the disability in each such case shall be deemed to be total for the period specified and after such specified period, if there be a partial incapacity for work resulting from the injury specified, the employee shall receive compensation while such partial incapacity continues; but in *no case* shall compensation continue more than three hundred weeks after the injury. The Compensation to be paid for the injuries hereinafter specified shall be as follows, to wit:—"

For the loss of a thumb, one-half average weekly wages for 50 weeks.

For the loss of index finger, one-half average weekly wages for 30 weeks.

For the loss of second finger, one-half average weekly wages for 25 weeks.

For the loss of third finger, one-half average weekly wages for 18 weeks.

For the loss of little finger, one-half average weekly wages for 15 weeks.

The loss of the first phalange of the thumb or of any finger shall be considered to be equal to the loss of one-half of said thumb or finger, and the compensation shall be one-half the amount above specified.

The loss of more than one phalange shall be considered as a loss of the entire thumb or finger, provided, however, that in no case shall the amount received for the loss of more than one finger exceed the amount specified in this schedule for the loss of a hand.

For the loss of the great toe, one-half average weekly wages for 25 weeks.

For the loss of any other toe, one-half average weekly wages for 10 weeks.

The loss of the first phalange of any toe shall be considered to be equal to the loss of one-half of said toe and the compensation shall be one-half of the amount specified.

The loss of more than one phalange shall be considered as the loss of the entire toe.

For the loss of a hand, one-half average weekly wages for 125 weeks.

For the loss of an arm or any part above the wrist, one-half average weekly wages for 150 weeks.

For the loss of a leg, or any part above the ankle, one-half average weekly wages for 150 weeks.

For the loss of a foot, one-half average weekly wages for 125 weeks.

For the loss of an eye or the reduction of the sight of an eye with glasses to one-tenth of the normal vision, one-half average weekly wages for 100 weeks.

For the loss of sight in both eyes, one-half average weekly wages for 500 weeks.

For the loss of both feet, one-half average weekly wages for 500 weeks.

For the loss of both hands, one-half average weekly wages for 500 weeks.

For the loss of one hand and foot, one-half average weekly wages for 500 weeks.

For paralysis of both arms and legs, one-half average weekly wages for 500 weeks.

For imbecility, one-half average weekly wages for 500 weeks.

For insanity, one-half average weekly wages for 500 weeks.

A commission of three is created to administer this Act to be known as "The Industrial Accident Commission of the State of Maine". Said Commission is to consist of the Insurance Commission, the Commissioner of Labor and Industry *ex-officio*, and a chairman, "who shall be learned in the law and a member of the bar in good standing", to be appointed by the governor at a salary of \$2,500 *per annum*.

In commenting upon this law, we would say that it is no worse and no better than similar laws in the majority of states. It is of course better than no law at all, but at best it is elemental. For instance, no difference in value is recognized between the right hand and the left, and the age of the injured employee, as affecting his capacity to learn a new trade, is not considered at all.

There is a Workmen's Compensation Act in this country, which is scientific, fair and equitable to all concerned, and which has the unbounded admiration of all students on the subject. It is that of California. The drafters of this law say :

"The successful application of a schedule for permanent disability necessitates the determination of the degree of disability that has been produced by a given accident. A rating of disability can at best be only approximately right, yet the method of arbitrarily fixing so much for a finger, so much for an arm, and so much for a leg is so crude that it will work injustice in a very large proportion of cases. The index finger is more valuable to a typesetter or a stenographer

than it is to a laborer, and the loss of a leg to a bookkeeper is not so serious a misfortune as it is to a stevedore. Further, a disability in general is more serious the greater the age for the reason that there is less power of accommodation, less ability to learn a new occupation, in which the injured member will not be so necessary."

These are wise words and seem to make further comment unnecessary.

It will be noted that none of the members of the Commission are to be appointed from the medical profession.

This seems strange when the basis of all matters coming before the Commission concerns industrial accidents. It seems stranger still when we read in the body of the Act that if the employer and employee fail to agree as to the amount of compensation, which of course involves the medical question of disability, "the chairman shall in a summary manner decide the merits of the controversy".

The prototype of most of these State Laws on Workmen's Compensation was clearly not drawn by an American medical man. The use of the word "phalange" shows this. This word has been copied by one state from another until the whole literature of Workmen's Compensation is saturated with it. And yet it is doubtful if any American physician ever uses it. The word, of course, should be "phalanx".

C. R. B.

Your Journal.

If the function of the State Medical Journal lay merely in placing before its readers a certain amount of the recent current medical literature each issue, its lease of life would be long and its course smooth. But is this after all what the average physician wants or expects as he glances through the pages of his Journal? We think not.

It is quite common for an individual in picking up a Journal to glance through the advertising pages, whether in search of some article, or from habit. He may find what he is looking for, or he may find a suggestion of something else that he really wanted but had quite forgotten. It apparently is quite a common habit among physicians to scan hurriedly the papers in the Journal, and to turn to County News and Notes and Personal Notes, which tell them more of the active organization work and of the individuals who are themselves interested in such work. And so we may be pardoned perhaps in placing emphasis on two quite important issues in the running of a state medical journal; namely, first, advertising pages, and secondly, our county news and notes and personal notes.

The Journals representing State Medical Societies in this country have cleansed their advertising pages, and to-day represent the clean,

pure, and strong medical journalism of this country. In short, the A. M. A. Journal, together with the twenty-eight State Medical Journals, represents a strong and successful co-operative effort in this country for clean medical journals, and to-day they offer their advertising pages only to those advertisers whose products are acceptable to the Council on Pharmacy and Chemistry, and, furthermore, the Co-operative Bureau, before accepting such advertising, assures itself as to the responsibility of the individual or concern so as to not only protect the Journals, but also to protect the physicians in their dealings with such concerns or individuals; and now the Co-operative Bureau informs us that, furthermore, "they have organized a Service Department in which they keep catalogues, price lists and all the latest data about pharmaceutical products, surgical instruments, automobiles and other goods which physicians use for their homes, offices, sanitaria, hospitals, etc. This Service Department will be able to promptly answer any inquiry, stating where such products can be obtained, the price, etc." This information will be given free to all readers of your Journal.

Now, Doctor, think what this means to you. We shall be glad to have you confine your dealings to those advertising in the Journal, so far as possible, but if there is any article or instrument which you are endeavoring to locate, and you do not find it among the Journal advertisements, write the Co-operative Bureau or this Journal and we will endeavor to find out all that you want to know in regard to it in the shortest possible time, and at no expense to you.

If this Journal had nothing more to offer than access to those things which you must need and use, it would have sufficient reason for existence, and more than that it assures you that the articles appearing in its advertising pages are as represented, and that the concerns are strictly reliable business concerns so that you need have no hesitation in regard to doing business with them.

Do not forget that patronage to those concerns which patronize your Journal will mean more advertising pages for the Journal and, consequently, less expense to the Association.

Poisonous Fly Papers.

A year ago, in discussing this subject editorially, we gave a partial report of the cases of arsenical poisoning of children from accidentally consuming the contents of fly destroying contrivances during the summer of 1914. It was gratifying to note the number of medical journals that reprinted our editorial or commented upon the subject. The discussion was evidently a timely one.

For the summer of 1915 we have been able to secure the reports of the following cases:

Month.	No.	Fatal.	Recovery Indicated.	Recovery Doubtful.
May,	1	1		
June,	2			2
July,	5	2	2	1
August,	14	5	8	1
Totals,	22	8	10	4

These cases were reported by the daily press as occurring in the following states: Georgia, 1; Illinois, 6; Indiana, 2; Iowa, 2; Massachusetts, 2; Michigan, 2; Missouri, 1; Nebraska, 1; New York, 1; Oklahoma, 1; Ohio, 1; Pennsylvania, 2; a total of twenty-two cases. This report must necessarily be considered as very incomplete, and but an indication of the possible extent of a wholly preventable danger.

We again point out the fact, that the symptoms of arsenical poisoning are very similar to those of cholera infantum and that undoubtedly a number of the cases of cholera infantum that occurred were really cases of arsenical poisoning, and death, if occurring, was attributed to the fact. The cases reported were of children ranging in age from one to six years. These little patients are not old enough to tell what they have taken when questioned as to their illness and unless they are seen consuming the fly poison the actual cause of their sickness or death is overlooked, and the fatality ascribed to cholera infantum or to some other similar cause and the error in diagnosis goes undetected.

We repeat, arsenical fly destroying devices are dangerous and should be abolished. Health officials should become aroused to prevent further loss of life from their source.

Our Michigan Legislature, this last session, passed a law regulating the sale of poisonous fly papers. Similar enactments should be secured and enforced in every state in the Union.—From the *Journal of the Michigan State Medical Society*.

The Field Agent for Conservation of Eyesight, Mr. Henry Copley Greene, reports that so far as is known only one child in the State of Massachusetts has become blind from ophthalmia neonatorum during the year ending December 1, 1915. No recent report has given greater encouragement to workers in the field of prevention of blindness, proving as it does the value of continued intelligent work; Massachusetts has maintained an organized conservation of vision movement longer than any of the states.

Book Reviews.

International Clinics.

By leading members of the medical profession throughout the world. J. B. Lippincott Company, Publishers, Philadelphia and London. Price, \$2.00 each.

The customary standard of this work has been fully maintained and well merits the support of the medical profession. It would be impossible to enumerate the various authors and their subjects, so that we will touch upon but few, which illustrate the many.

In Volume IV, twenty-fourth series, we have a very interesting article by Howard Kelly on "What Radium Can Do" together with other papers on the same subject. The series of articles on pneumonia and nervous disorders offer equally valuable papers.

In Volume I, twenty-fifth series, we find articles by Wm. N. Berkeley, Wm. Best, Harlow Brooks, of New York, James T. Case, of Michigan, Sir Wm. Osler, of England, and others. One article appearing in this issue is timely, namely, "The Therapeutic Value of Direct Transfusion of Blood in Diseases of the New-Born", while "Progress of Medicine During the Year of 1914" is both interesting and instructive.

In Volume II, twenty-fifth series, we find articles by Wm. L. Balsanger, of Chicago, Charles Greene Cumston, of Geneva, Switzerland, John B. Deaver, of Philadelphia, and others. Under "Diagnosis and Treatment" we find careful consideration given to such subjects as "Cerebrospinal Fluid in Diagnosis", "Some New Phases of Emetine Therapy", "Animal Extracts in the Treatment of Medical Diseases", as well as Case Reports and other data.

Volume III offers a fund of good material. Apart from the strictly medical phase, we have a separate classification of "Borderland Medicine", which will prove intensely interesting to any member of the profession.

It is quite useless in reviewing these volumes to attempt to cover the amount of material offered, but to the progressive medical man we have no hesitation in recommending them.

The Starvation Treatment of Diabetes.

By Lewis Webb Hill, M. D., and Reva S. Eckman, with an introduction by Richard C. Cabot, M. D. W. M. Leonard, Publisher, Boston, Mass. 72 pages; price, \$1.00.

This book furnishes in compact form the details of the Allen treatment of diabetes, with a series of graduated diets as used at the Massachusetts General Hospital. The essential points brought out by the treatment are as follows:

1. It is not dangerous to starve a diabetic, and two or three days of starvation almost always make a patient sugar free, thus saving a good deal of time, as contrasted with the old treatment of gradually cutting down the carbohydrate.

2. It is not desirable for all diabetics to hold their weight.

Some cases may do much better if their weight is reduced ten, fifteen or even twenty pounds.

3. After starvation, the diet must be raised very slowly to prevent recurrence of glycosuria.

4. An excess of proteid must be regarded as producing glycosuria, and the proteid intake must be restricted a good deal more than has been the custom in treating diabetes.

Forty-nine tables are presented, each giving a diet for three meals. These diets arranged in a progressive series, with regard to their contents of carbohydrate, protein and fat, and they should afford substantial aid to all who wish to give their patients the benefit of this treatment.

HAROLD V. BICKMORE.

Diseases of the Skin and the Eruptive Fevers.

By Jay Frank Schamberg, M. D., Professor of Dermatology and Infectious Eruptive Diseases in the Philadelphia Polyclinic and College for Graduates in Medicine. W. B. Saunders Co., Publishers, Philadelphia and London. 3d edition revised. Cloth, \$3.00 net.

The author has thoroughly covered the field of dermatology giving concisely the etiology, pathology, diagnosis and prognosis of each disease and, depending upon the importance of the disease, a sufficiently complete description of the skin manifestations. His treatment not only embraces the sound suggestions of other dermatologists, but also the methods and formulæ that have been of most use to him. The many photographic illustrations have been carefully selected and are so excellent that colors are not at all necessary to bring out the detail of the eruption.

The chapter on syphilis should impress the reader of the value of an early diagnosis and present day methods of treatment.

The chapter on acute eruptive fevers, variola especially, is of surpassing merit, and in addition the author has given a description of the usual and occasional eruptions that occur in typhoid, typhus, rheumatic fever, dengue, miliary fever, angina and tonsilitis.

This book of 585 pages and 248 illustrations, concise and clearly written, should be of great value to both student and practitioner.

B. F.

What to Eat and Why.

By G. Carroll Smith, M. D., of Boston, Mass. Second edition, thoroughly revised. W. B. Saunders Company, 1915, Philadelphia and London. Octavo of 377 pages. Cloth, \$2.50 net.

The first edition of this work received many favorable comments, and the appearance of this second edition indicates that the first edition was well received. In the present edition there is found an added chapter on exercise and another on rheumatism, and the different affections of the stomach have all been rewritten and greatly enlarged.

As a work on diet, it specifies in detail the quality and quantity of food to be used in the various diseases considered, but what we believe will appeal more to the general practitioner, is the "Why" such foods and quantities are to be used. Herein the author's reason-

ing is sane and convincing, and is apparently based on years of personal experience on the treatment of private patients of all walks in life. But the book is more than a treatise on diet, as it deals to a considerable extent with the causes and treatment of many chronic diseases.

The chapter on exercise seems best adapted to the needs of the middle aged and older class of patients, and the directions contained therein may be followed with both safety and benefit.

The book is most readable; it is particularly suited to the needs of the busy general practitioner, who should obtain from it some new ideas and much general help in the treatment of his patients, especially in that large class in which dietotherapy is such an important feature.

R. F. C.

Diarrheal, Inflammatory, Obstructive and Parasitic Diseases of the Gastro-Intestinal Tract.

By Samuel G. Gant, M. D., L.L. D., Professor of Diseases of the Colon, Sigmoid Flexure, Rectum and Anus, at the New York Post-Graduate Medical School and Hospital. W. B. Saunders Company, 1915, Philadelphia and London. Octavo of 604 pages, 181 illustrations. Cloth, \$6.00 net; half morocco, \$7.50 net.

This work, which is one of several on allied subjects by this well-known specialist, is probably the most complete treatise on diarrhea ever published. The author in the book's preface complains that heretofore extended information regarding diarrhea has been difficult to obtain except by much culling of an enormous amount of literature. This fact, together with the author's conviction that physicians generally do not understand the various types of diarrhea, the modern methods of differentiating them, nor the beneficent results which follow their treatment by directly irrigating the lesions responsible for the loose movements or by surgical measures, are the chief reasons for this publication. The first chapter on examination and diagnosis contains nothing that is new. The following one hundred and twenty pages are devoted principally to etiology and to the many diseases and conditions of the body which occasion diarrhea, such as nose, throat, mouth, eye, thyroid, liver, kidney, genital, skin, bone and other diseases. A brief chapter is devoted to mylordosis of the intestinal tract. Another to acute infectious diseases, one on tropical diseases; two chapters to sundry diarrheas resulting from chilling, sunstroke, old age, agoraphobia, sitophobia, hypodynamia cardia, burns, the abuse of drugs, etc., etc. Three are chapters on gastrogenic, enterogenic, neurogenic, toxic, and compensatory diarrheas. Three chapters are devoted to non-specific and six to specific enteritis-colitis, sigmoidites, etc. Several chapters are given to entamebic bacillary and parasitic diarrheas. Thus one readily concludes that the various causes of diarrhea have been duly considered. As to treatment, one chapter is devoted to intestinal irrigation per rectum and the various devices for this purpose and the necessary postures are amply illustrated. A rather extraordinary chapter deals principally with the drug treatment, and includes seventy-nine or more prescriptions, each labeled for the particular form of diarrhea for which it is indi-

cated. These seventy-nine prescriptions contain some eighty-seven or more active medicinal agents. The name of the originator of each prescription is appended, the author's appearing twenty-seven times. One should not conclude, however, far from it, that the author relies upon medical treatment alone. Dr. Gant is a pioneer and staunch advocate of direct intestinal irrigation, and he describes in detail and by illustrations the various operations, appendicostomy, acostomy, appendico-acostomy, etc., whereby direct irrigation may be done. The chief value of this work lies in the chapters devoted particularly to the etiology of diarrhea and to its surgical treatment.

R. F. C.

Nitro by Hypo.

By Edwin P. Haworth, Superintendent of The Willows Maternity Sanitarium, Kansas City, Mo. The Willows Magazine Company, Publishers. 12mo. of 128 pages, bound in gray silk-finish cloth. Price, \$1.00.

This volume takes up in a very concise way matters pertaining to the average physician's life, beginning with the medical progress, and touching on the work and habits of the physician and his value to the community, also the possibility of habits innocently formed, etc.

Prevention and Treatment of Infections.

By Oliver T. Osborne, A. M., M. D., Professor of Therapeutics and formerly Professor of Clinical Medicine in Yale Medical School; member of the Council on Pharmacy and Chemistry, New Haven, Conn. The Journal of The American Medical Association, 535 North Dearborn street, Chicago, Ill., Publishers. Silk cloth. 4½ by 7½ inches, 250 pages. Price, postpaid, 75 cents.

After considering some of the common factors in immunity, which naturally takes into consideration the necessary amount of sleep, the drinking of water, the question of heat in infants, school hygiene, air, acute acidosis, and in fact all conditions which have to do with disease in childhood, it goes on to the consideration of the present status of vaccine prevention and vaccine therapy, together with the school question with the various infectious diseases, and finally acute anterior poliomyelitis. It is a concise and valuable reference book.

A Code of Lighting for Factories, Mills and Other Work Places has been prepared by committees of the Illuminating Engineering Society, in order to make available authoritative information for legislative bodies, factory boards, public service commissions, and others who are interested in enactments, rules and regulations for better lighting. While the code is intended as an aid to industrial commissions and other similar bodies in those states and municipalities which shall actively take up the question of legislation as related to factory and mill lighting, it is useful in equal measure for the industries themselves as a practical working guide in individual efforts to improve lighting conditions. The language of the code has not been drafted according to legal phraseology, but is simple and pointed throughout, thus being readily available for transforming into legal orders, and at the same time as a working guide in practical design and installation work. A limited edition has been prepared for general distribution and copies may be obtained at a nominal cost of 12 cents each by addressing the Illuminating Engineering Society, 29 West 39th Street, New York City.—*National Committee for the Prevention of Blindness.*

County News and Notes.

CUMBERLAND.

PORTLAND MEDICAL CLUB.

The regular monthly meeting was held at the Columbia Hotel, Thursday evening, February 3, 1916. The question of obtaining a public health expert for the city was brought up and freely discussed. A suitable man could probably be secured for \$3,000.00 to \$3,500.00 a year. Dr. Gilbert, the president, appointed the following committee of five to appear before the city government and present the situation concerning the Board of Health: Drs. S. J. Bassford, B. B. Foster, F. P. Webster, A. W. Haskell and T. O. Vanamee.

Dr. Jamieson read a paper in which he discussed "Some Points in the Physiology of Digestion."

The paper dealt first of all with a description of the movements which occur during digestion in the stomach, small intestine and colon, and the conditions, chemical and physical, which influence these movements.

The physiology of gastro-enterostomy was briefly discussed, with reference to the effect of that operation on the gastric movements and acidity, and on the general nutrition.

The absorption of food stuffs was the next subject. Protein absorption was fully described, the point being made that it was only as amino-acids that proteins were absorbed, whether in the small intestine in the course of ordinary digestion, or in the colon in the course of rectal feeding. If nutrient enemata ever had to be administered, they ought to be prepared in an absorbable form, by allowing pancreatic digestion of milk to continue for twenty-four hours instead of the usual twenty minutes, for, by that time, amino-acids and hot peptones, which were unabsorbable, were the end products of tryptic digestion.

Paper discussed by Drs. Burr and Chase. Meeting adjourned at 9.45 P. M.

BENJAMIN FOSTER, *Secretary, pro tem.*

KENNEBEC.

The annual meeting of the Kennebec County Medical Society was held at the Hotel North, December 29, 1915. The society has two representatives in the Anglo-French Hôpital service: Dr. Arthur DesJardins and Dr. S. H. Kagan, whose dues for the year it was voted to abate.

The following officers were elected :

President, Dr. H. K. Stinson.

Vice President, Dr. O. C. S. Davies.

Treasurer, Dr. S. E. Vosburgh.

Secretary, Dr. S. J. Beach.

Censors, Dr. A. B. Libby, Dr. R. H. Stubbs, Dr. B. P. Hurd.

Delegates to the Maine Medical Association, Dr. T. E. Hardy, Dr. S. J. Beach, Dr. F. E. Strout, Dr. Alton Sawyer.

Dr. R. D. Simons, the retiring president, in a lively address emphasized the growing importance of preventive medicine as a field for specializing. Several cases were reported. In a number of these the interest was greatly increased by the pathological work of Dr. H. W. Hall, pathologist at the State Hospital.

Dr. W. H. Harris reported a case of "Stone Encysted in the Urinary Bladder." Several examiners had failed to make the diagnosis as the stones were protected from sounding and not visible to the cystoscope. At operation they were found in a pocket. Dr. Harris attributes the formation of these pockets to a hernia in the muscular wall of the bladder. A similar case was reported by Dr. R. H. Stubbs. In this a single stone of unusual size had for a nucleus a paraffine cylinder which had been introduced many years previously.

Dr. S. E. Vosburgh reported eleven cases of Pellegra seen at the State Hospital with photographs and pathological specimens by Dr. H. W. Hall. His conclusions agreed with the findings of the National Commission that Pellegra is a nutritional disorder due to low proteid diet.

Dr. Wright reported a case of general septicaemia due to the *Bacillus Aerogenes Capsulatus*. The patient was a general paralytic with poor vitality, in whom the infection apparently began as cystitis. The pathological findings of Dr. H. W. Hall showed foci of crepitation and colonies of Gas Bacillus in the liver and other organs.

Dr. S. J. Beach reported two cases of nasal diphtheria in brothers. The first apparently began as a skin infection without membrane but resisting treatment, and then entered the nostril. There was no fever or malaise, the only complaint being increasing difficulty in breathing. Nasal membrane was not typical, but after several negative cultures, a positive one was obtained. The case cleared with antitoxin. The second gave a history of two attacks during the nine months following, simulating frontal sinusitis with spontaneous recovery. He was seen after the third attack because of nasal obstruction. There was no fever or malaise. The organism was reported pseudo-diphtheria, but a section of the membrane submitted to Dr. H. W. Hall was typical of diphtheria, and the patient recovered at once with antitoxin.

The case was interesting because it suggests that the second patient carried the infection during the period of nine months without symptoms except during three exacerbations.

The meeting had an unusually large attendance and was of great general interest.

PENOBCOT.

The regular monthly meeting of the Penobscot County Medical Association was held at the Bangor House, Tuesday evening, January 18, 1916.

Dr. John B. Thompson, Vice President, in the absence of Dr. Sawyer, called the meeting to order.

The application of Dr. Alfred H. Schriver was presented and referred to the Board of Censors. It was voted to invite all the physicians in the county, whether members of the Society or not, to attend our next meeting, February 15th, when we expect to have Dr. Goodale, of Boston, with us.

After dinner the Hon. L. A. Emery, of Ellsworth, formerly Chief Justice of the Supreme Court of Maine, gave us a highly instructive paper on the "Legal Aspects of Medicine."

Drs. Daniel McCann and Wm. C. Mason discussed the paper.

The following were present:

Hon. L. A. Emery, Bangor, Me.	Dr. B. L. Bryant, Bangor, Me.
Dr. E. B. Sawyer, Bangor, Me.	Dr. A. A. Brown, Bangor, Me.
Dr. D. A. Robinson, Bangor, Me.	Dr. Emery, Bangor, Me.
Dr. Daniel McCann, Bangor, Me.	Dr. A. E. Small, Bangor, Me.
Dr. William C. Mason, Bangor, Me.	Dr. A. K. P. Smith, Bangor, Me.
Dr. P. T. Haskell, Bangor, Me.	Dr. J. F. Starrett, Bangor, Me.
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Dr. J. B. Thompson, Bangor, Me.	

YORK.

YORK COUNTY MEDICAL SOCIETY.

The eight hundred and thirty-eighth meeting of the York County Medical Society was held in Deering's Hall, Saco, Thursday, January 6th, at 10.30 A. M. Dr. J. M. O'Connor, of Biddeford, President, in the chair. Minutes of the October meeting were read and approved. Dr. Stephen A. Cobb, of Sanford, was elected a member, and one application for membership was referred to Board of Censors. The Treasurer's report showed:

Cash on hand January 1, 1915,	\$ 40.51
Collected during year 1915,	210.00
	<hr/>
	\$250.51
Expended,	187.25
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**THE COMPARATIVE VALUES OF SOME METHODS OF
DIAGNOSIS IN DIGESTIVE DISEASES.**

BY RICHARD F. CHASE, M. D.

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and former Physician to the Boston Dispensary, etc.

The particular methods of diagnosis which are to be considered are, viz.: The modern clinical, the X-ray and bismuth, and the surgical exploratory methods. That all of these methods possess merit, is not to be doubted. That a fair and just estimate of their comparative values, however, does not prevail, is the assumption upon which this paper is based. Consequently, it will be my purpose to set forth, in as fair a manner as is possible, both the *merits* and the *demerits* of these various methods of diagnosis. If I dwell at some length upon the modern clinical methods, it is because I believe that this feature of the subject is not generally well known and understood.

Since gastric cancer is one of the diseases in which all of these diagnostic methods are applicable, let us consider their application in this condition.

Unless the diagnosis of cancer is to be made fairly early in the course of the disease, there is little use in making the diagnosis at all. If we are to await the appearance of the old cardinal symptoms, "tumor, cachexia, and coffee ground vomitus," the time for surgical intervention (at present our only hope in treatment) will long since have passed. Hoffman presents figures to show, that at the time the average gastric cancer patient reaches the consultant, the duration of the disease already exceeds ten months.

Now the diagnosis *can* and *should* be made at an earlier period, and the responsibility rests largely with the general practitioner, who first sees these patients. Digestive symptoms of weeks' duration (regardless of the character of the subjective ones, because in this as in most digestive diseases these symptoms are absolutely unreliable as is well known by all clinicians), accompanied by loss of weight, and especially if in a person over 40 years of age, are sufficient signs to warrant an *early* determination of the true condition present.

Reliable statistics show that about 1% of our total mortality is due to gastric cancer, and that of all cancers, those of the alimentary tract constitute over 50%. Yet from figures recently obtained, I learn that here in Maine, the general country practitioner sees, on an average, about one case of cancer of the stomach in every two years.

Naturally a disease that is so seldom encountered by the general practitioner receives but comparatively little consideration from him, and he is not alert to its existence. The physician or surgeon, however, whose practice may contain 5-10% or more of these cases, is ever mindful of the disease, and it is *he* who best realizes the need and value of early examinations in doubtful cases.

Disregarding the valuable information usually obtained from the other methods of examination, let us see what may be accomplished by the use of those clinical methods *not usually* employed by the general physician.

With a stomach tube, one may detect an obstruction in the esophagus, or at the cardia, that had never been suspected, and which, with other symptoms, may mean cancer. Marked delay or absence of the deglutition sound also indicates esophageal obstruction, most often due to cancer.

A diminution of hydro chloric acid during observation and treatment is indicative of a malignant condition, because in benign cases with a low acidity treatment usually causes an increase of this acid. In cancer of the cardiac end of the stomach an absence of hydro chloric acid is nearly always detected at the time the diagnosis is made, and an absence of hydro chloric acid is usually found later in the course of the disease, regardless of the location of the lesion. In chronic ulcer, however, undergoing malignant change, the hydro chloric acid may be present and in normal amount, even in the last weeks of a patient's life, but in such cases other signs are *almost always* present indicating that a serious condition exists.

Lactic acid in significant amount, when formed in the stomach, is found only when hydro chloric acid is absent, and since its presence is rarely encountered in other diseases than cancer, it is of considerable

diagnostic value in this disease—it is *not*, however, pathognomonic of cancer. The detection of the Oppler Boas bacillus has practically the same significance as lactic acid.

About 75% of gastric cancers are located in the pyloric end of the stomach, and as a rule cause obstruction. Slight obstruction may be indicated by the finding of a few food crumbs in the morning fasting stomach, while greater degrees of obstruction are indicated by the recovery at this time of several ounces of gastric contents, a condition designated as gastric stasis. A positive chlorophyll test has the same significance as the finding of food in the fasting stomach. The same condition,—obstruction—may also be detected by the X-ray and bismuth, and by other tests.

Gastric stasis usually indicates pyloric obstruction. Pyloric obstruction almost always means cancer or ulcer. Consequently gastric stasis is a most important diagnostic symptom. Gastric stasis and lactic acid usually mean cancer of the pylorics. Stasis and hydro chloric acid present most often *indicate benign* stenosis of the pylorus!

In some cases while using a stomach tube, blood may be observed in the gastric contents, and in patients in whom hematemesis has never occurred, this finding, or the detection of invisible blood in the faeces, if the test is properly carried out, will often settle the diagnosis.

Salomon's test for cancer: The clean fasting stomach is washed out with 400 Cc of normal salt solution, and the salt solution tested for albumen, with Esbach's reagent. If albumen is found in appreciable amount, the presence of cancer is indicated. A negative result, however, does not exclude cancer. In my own experience, a positive test has never been obtained in other than gastric cancer cases. I have employed this test over a period of more than ten years.

The accurate determination of weight loss (so often neglected), taken with other symptoms, may at times prove to be the most important sign indicating cancer. On the other hand, a steady increase in weight during observation and the treatment of perverted functions, together with relief of symptoms, will usually enable one to *exclude* cancer with much certainty.

But, since a slight *temporary* increase in weight and marked relief of symptoms may result from proper treatment *even* in gastric cancer, such temporary improvement must not be mistaken as indicating a benign condition.

This instance may be sighted, to show that in the correct interpretation of the various results obtained by these methods of diagnosis, experience and good judgment are essential factors.

In those suspected cancer cases, proving to be non-malignant, the

treatment administered during the period of observation has very likely partially or wholly overcome the existing condition—an advantage not obtained by the employment of the X-ray or the surgical exploratory methods of diagnosis.

By the use of these clinical methods, one is enabled to diagnose gastric cancer *months* earlier than the diagnosis was formerly made. It has been shown that in cancer of the pyloric end of the stomach (constituting about 75% of all gastric cancers) that the conditions are such that the diagnosis *can be made* sufficiently early to warrant resection in 50% of these cases. In very early cases, in which a positive diagnosis may not be possible by these methods and the X-rays, one may be led to *suspect* that cancer is present.

In advanced cases the probable location and the extent of the disease may be often accurately determined, consequently one is enabled to decide in which cases a surgical operation would *probably* be a useless procedure. In arriving at these various decisions, although the greatest haste consistent with thorough work is imperative, considerable time may be required,—the earlier the cancer the longer the time needed as a rule.

During this period of observation the patient should be accessible to the consultant at all times and so situated as to be able to coöperate with him in every manner desired. The best results are obtained if the patient is left entirely to the care of the consultant. Remember, please, that the consultant's responsibility in these cases is a grave one. A positive diagnosis of gastric cancer cannot be made as early as is to be desired, either by the clinical methods or the X-rays or both.

The diagnosis when made, is based upon the symptom complex obtained by a careful and painstaking observation of the patient and by the application of all of the necessary diagnostic methods at our command. In advanced cases the diagnosis may often be made in one or two days' time (a snap diagnosis may be made in a few minutes) but proof of the existing condition or substantial evidence is the aim of the internist. In the less advanced cases several days to two weeks' time or longer may be required for a diagnosis—or for the exclusion of cancer if it is not present; usually more time is required for exclusion than for diagnosis of cancer. In *very early* cases a positive diagnosis may not be possible by these means in three weeks' time; in such cases if cancer is suspected, and the patient's *age* and *physical condition* warrant—the observation should not continue longer—a surgical exploration should be advised. This rule, like many others, may have an occasional exception. It is a *safe* one for both physician and patient.

An X-ray examination should be made in all cases in which doubt exists as to the diagnosis, also in certain other cases in which additional information may be reasonably expected—provided, however, that a roentgenologist, experienced in this line of work, is available and the patient can afford the cost.

Opinions as to the need and value of X-ray examinations in digestive diseases differ. The popular opinion seems to be, that this method of diagnosis is *complete* in itself, and that any man who does X-ray work is competent to render good service in the diagnosis of digestive diseases. I conclude that this erroneous opinion has resulted mainly from the exaggerated claims for this method of diagnosis, so often seen in the recent abundant literature on this subject, but also from the physician's lack of personal experience with this work.

In order to present to you as fair an estimate as is obtainable of the need and value of X-ray examinations in gastric cancer, let me quote from a recent article on "X-ray Evidence in Early and Latent Gastric Cancer," by Doctors White and Leonard, of the Boston City Hospital.

Conjointly these men studied 118 patients with suspected cancer. A positive diagnosis was made in 41 cases. Their conclusions are (1). In the very large majority of cancer cases, as seen by the consultant, if the stomach is thoroughly examined for *secretion—motility* and *bleeding*, the X-ray evidence will merely confirm the diagnosis already made by clinical methods. In 34 operated cases a correct diagnosis was made in 83% by clinical methods alone, and in 89% with the additional aid of X-ray examinations. (2). As to early cancer their search gave little results, because the earlier the cancer the less clear the picture with the X-ray. Yet, they believe this method will occasionally aid in the detection of early cancer. "More than a few routine plates and fluoroscopic examinations, however, will be required." (3). In excluding cancer the X-ray was very helpful, as in 63 patients in whom a normal picture of the stomach was obtained, cancer has not been proven to exist. They say: "It is almost needless to state that we studied the X-ray findings in connection with our clinical data and did not attempt to build a diagnosis on X-ray data alone."

These are the unbiased conclusions arrived at conjointly, by a roentgenologist who is an expert in this particular line of work, and by an internist of much experience in digestive diseases. Certainly the results of this study should exert a considerable influence in giving to this method of diagnosis, in gastric cancer at least, its proper status.

The X-ray is an adjunct of some value to the clinical methods of diagnosis, and some believe that this combination of methods may usually obviate a surgical exploration—most surgeons and many other men, however, do not entertain this belief.

In the diagnosis of gastric and duodenal ulcer the value of X-ray examinations is no greater, probably rather less, than in cancer. I will refrain from quoting the many contradictory opinions on this subject.

While the size, shape and position of the stomach is beautifully shown by the X-ray and bismuth, this method of examination is almost never necessary, if inflation and percussion are employed. In patients with moderately thin abdominal walls, inflation alone shows the size, shape and position of the stomach as well as the X-ray. In patients with thick abdominal walls, inflation and percussion, or auscultatory percussion, gives the position of the stomach very accurately.

The conditions in which it is most often necessary to determine the stomach's position are ptosis and dilatation, two conditions often confounded.

A low position of the stomach and stasis means dilatation, with cancer, or ulcer or their sequelae, as the most common cause. A low position and motor sufficiency (no stasis) means gastrophtosis.

Before referring your patient to an experienced roentgenologist it will be well to ascertain the probable cost of the examination. And might it not be well to ascertain by a thorough physical examination by these clinical methods whether or not an X-ray examination is really needed in the case?

To some members of our profession the mere mention of gastric cancer in a patient apparently means surgical operation, regardless of the location or extent of the disease, or the age or physical condition of the patient. To others whose experience with surgery in this condition has been unfortunate (very likely through no particular fault of the surgical technic), surgery is the *one* thing to be avoided. Now, is there not a middle course that may be wisely chosen? Personally I believe there is.

As previously stated, if in a case of suspected cancer, the diagnosis cannot be made or this condition excluded, within three weeks' time, by the clinical methods and the X-ray if necessary, then I believe a surgical exploration should certainly be made, and whatever operation is indicated, performed. I cannot too strongly urge, that all unnecessary delays in this connection should be avoided.

On the other hand, the indiscriminate use of the exploratory method is to be deplored and condemned. Such use of this method is,

in a great measure, due to the practice of physicians who refer their patients to the surgeon, without giving them the benefit of a *thorough clinical examination*.

A doubtful, or more often an advanced, case of gastric cancer is brought to the surgeon. It is left to him to decide what shall be done. What is the result? He opens the abdomen and finds, either the disease too far advanced to warrant any operation at all, or the lesion so situated that nothing can be done, or occasionally he may be justified in doing a gastro-enterostomy, and sometimes he will find no cancer. This is a common experience, the kind that has done much to discredit surgery in this condition. I ask you, is it not better to determine some of these conditions without opening the abdomen? In my mind it is the competent internist's *duty, to know*, when a surgical exploration, or an X-ray examination, is required.

Much that has been said of cancer applies to peptic ulcer, especially to the chronic forms. Many of these cases of chronic ulcer *cannot* be diagnosed clinically except by thorough and repeated tests of the gastric functions—a search for occult blood, the application of the thread test, etc. Occasionally the X-ray will be needed and sometimes perhaps a surgical exploration.

Cancer and ulcer are the only gastric diseases in which all of these diagnostic methods may be required. Of *all* gastric diseases and conditions, however, cancer and ulcer form but a small part. In that vast majority of other digestive conditions (of which the surgeon and radiologist sees but a small portion) these clinical methods of diagnosis are usually required to determine the exact condition present. Chronic gastritis and achylia gastrica *cannot* be diagnosed, except by these methods. In the diagnosis of gastric dilatation and ptosis these methods are all sufficient. In the various psychic and functional nervous disorders of the stomach so frequently encountered, the physician can usually assure himself of their true nature by the employment of these methods, *moreover* he can assure his patients that no serious trouble exists—and thereby a long step is often taken towards the cure of the condition. As an example, many patients have voluntary eructations of air (or gas as they usually designate it), by proving to them, as can be done, that no excess of gas is generated in their stomach, and that the air belched has unconsciously been swallowed, and that the habit is a bad one—the symptom can usually be overcome during the period intervening between the first and second visit.

In the differentiation of pain due to hyperesthesia, hyperacidity, pyloric and cardiac spasm, or to other causes, these modern clinical methods furnish information that cannot be otherwise obtained. So

in perverted functions of the stomach such as hyperchlorydria, hypersecretion, hypermotility, pyloric insufficiency, one is not only enabled by these methods to determine the existing condition, but through the information obtained he is directed as to the proper drug treatment, the dietetic and other curative therapeutic measures. In fact the accurate diagnosis and the rational treatment of digestive diseases as a whole depends mainly upon the ascertainment of the *cause* of the trouble, as revealed by the proper employment of these clinical and laboratory methods.

PRESIDENT'S PROGRAM FOR THE CUMBERLAND COUNTY MEDICAL SOCIETY, 1916.

Fellow Members:

The constitution directs me as president to be the leading physician in the county, for the year of my term of service, and as such, in spite of my loss of hearing, I intend to try to be.

Ever since you elected me to office, I have given much thought to many problems facing us as physicians, and as citizens, and asking for some solution. Many of these belong, more properly perhaps, to the State Association, but as that Association meets only once a year and is unwieldy in its movements and irresponsible to suggestions, it is better that such suggestions for advance should be first discussed at the county meetings, and then forwarded for State-wide consideration to the larger Association.

I will now call your attention to some important questions concerning the public and ourselves.

PHYSICAL EXAMINATIONS IN THE PREVENTION OF TUBERCULOSIS.

I am informed that if I speak on this topic I shall only empty the hall in which we are assembled, but I take that risk, since there is so much to be said concerning this far-reaching disease. For, in spite of millions spent all over the Nation, and of which Maine has spent her share, we must acknowledge that there is nothing in sight but a sustained failure in the Prevention of Tuberculosis. Sanatoria are of benefit for the care of advanced cases, but they accomplish little for prevention. The true solution of the question of stamping out this

disease lies in physical examination of children. Such examinations have been carried out in many foreign lands with the result of diminishing the number, and an increasing in the cure of cures.

Post mortem examinations of one hundred consecutive bodies of children under ten years of age, and dying from other diseases than tuberculosis, showed tuberculous deposits in various organs. This proves that in order to prevent the outbreak of this disease, it must be discovered early in life. Knowing the objection of Democracies to personal interference in the form of physical examinations, the first step toward obtaining these is to obtain the power to examine children *suspected* of tuberculosis. Without detailing the powers, if any, now given to our medical examiners, I recommend that those of Portland and elsewhere in the county offer us at an early opportunity some working-plan by which this important object can be gained. I would further recommend, that the call for the State Association meeting should mention this, as one of the important topics to be considered. If this were done, members would be prepared to express their opinions concerning physical examinations, and offer suggestions for an appeal to the Legislature of 1917.

DISPOSAL OF HOUSE REFUSE.

I am interested in the disposal of swill, which should begin at home. If women would burn, and compel their servants to burn in the furnace or other heater all vegetable refuse daily, an enormous amount of swill would at once be disposed of eight months in the year. In case of a coal fire in the kitchen during the other months in the year, or of merely a gas stove, refuse could be desiccated and freed from smell, and then deposited in a receptacle for removal.

Many cities make money out of their swill. How then does it happen that we make nothing and even pay good money to get rid of it, unwisely? Cannot somebody find out where the trouble lies?

I believe so, and I recommend that some member prepare for our April meeting an illustrated paper to show how other cities treat their offal. For this purpose I offer any volunteer two books in English, showing what has been done in England and in Germany. Use those for material, and let the writers call on me for the numbers of slides ready to be forwarded from Washington on application, and which I have already chosen from the catalog of slides belonging to the Public Health Service. Such a paper, with slides showing buckets, receptacles, and destructors, would be valuable to every citizen of Maine.

THE NEW PORTLAND HIGH SCHOOL.

One of the great defects in our schoolhouses is improper lighting of the school rooms. Education of children depends absolutely on good light in the schools. Photometric investigations show that light should come from one side, the left, that windows should reach the ceiling, that no light should come from two sides of a room, and that artificial light should come from above. Whether lamps should encircle the cornice or whether light should come from central lamps is largely a question of expense.

WALLS AND CEILINGS SHOULD BE PAINTED WHITE.

If any of you will visit the Broadway school in South Portland or the Nason's Corner school you will find that windows have been let into two sides of several rooms, so that light shines into the teachers' eyes and prevents them from seeing plainly the children's faces. Moreover, sunlight for many months in the year has to be excluded by curtains. Such a state of affairs should have been foreseen, but in a desire for outside symmetry, windows were unnecessarily cut in the walls.

In order to satisfy myself that the lighting in the new High School would be good, I have, through the courtesy of the architects, inspected their plans, and am ready to state that the lighting will be satisfactory by day and by artificial light.

I have also inquired concerning any proposal to tint the walls or ceilings, and am assured that none is intended. This is good news, for any tinting of this sort whatsoever reduces the illumination by day and calls for increased artificial light, which is not only an extra expense but tends to eye strain.

Some of you may fail to care for this topic of lighting our new High School, but I am utilizing it as an opening to recommend: That the medical examiners and Board of Health should, as I have investigated the lighting, look into the sanitary and ventilating plans proposed by the architects of this building. Having in this way done our self-appointed work thoroughly, we have obtained for the children of Portland what they need at school: good light and good sanitary and ventilating arrangements.

INCONSIDERATE LEGISLATION FOR THE BLIND.

I will next speak on the inconsiderate legislation for the blind, by which the last Legislature gave \$15,000 for pensions for the blind with, of course, the same indefinite chances for increase attending all such legislation. Every dependent blind person over 20 and earning less than \$300 a year is entitled to a life pension of \$200 a year. The

number of blind in Maine being, as some assert, 500, we may be called upon ultimately to pension every one of them, which would come to \$100,000 a year. I think that we should petition the Legislature for proper changes in this law in order that the tax payers shall be safeguarded, and that underserving persons shall not be pensioned. I am sure that those who are blind from the so-called shameful disease, as well as from injuries due to negligence in not protecting their eyes in dangerous employments, should be excluded from the benefits of this law.

The primal defect in this law is that physicians without expert education are to be appointed "Examiners of the Blind." It is needless to say that claimants with an operable eye affection should not be pensioned. To determine such a question, a general physician is unfitted. Simulation of blindness is another question which practitioners cannot decide. No one without skill with the ophthalmoscope can decide concerning many forms of blindness. Finally, the discovery of blindness due to syphilis or gonorrhea, or to neglect, requires special fitness.

This law goes farther, and offers for each examination, involving the question of the expense of an average of \$4,000 (20 years of life at \$200 a year), the pitiful sum of two dollars. The United States gives \$5.00, and no citizen can deny that a skilled opinion is worth that, and more too, for it protects the State from the undeserving.

It is unwise that the State after establishing at great cost a school for the blind, and accepting from charitable persons additional sums for maintaining the work, should so inconsiderately enter into pension legislation which tends to keep the blind from utilizing that very institution. Whether you agree with me or not, you must admit, I think, that the State Treasury should be guarded by stricter examinations and it is no great hardship for those who expect to receive \$200 a year for life to consult a skilled expert in the large cities.

I recommend, therefore, discussion of this topic at an early meeting with a view to handing in intelligent information to the State Association.

STATE ASSOCIATION INSURANCE AGAINST MALPRACTICE SUITS.

In renewing my policy for insurance against these suits, I was told a few days since, that one company was increasing its rates. If one will do this, others will follow. I am consequently led to call your attention to the fact: That 22 State Medical Associations now insure their members.

It would be wise in my opinion for a committee to inquire how this plan works in neighboring states; what is the cost; whether it is effective; whether it tends to reduce damages; whether, finally, the presence of an united State Association, as defendant, does not have upon a jury a greater moral influence than that of a single physician.

BABY WEEK.

My attention has been called to the celebration of "Baby Week" as planned by the Children's Bureau of the U. S. Department of Labor. The idea is, that during a certain week in March next public attention shall be especially called to the need of caring for babies. I have consulted with various ladies who report progress, and it is to be hoped that some of our members will offer ideas in order that Maine may do her share in the good work. Physicians could contribute papers (unsigned) on the care of pregnant women, on vacations after delivery, and on the care of the new-born baby. Some physicians might be directed to lecture on similar topics. As a specialist, I can think of no other topics than ophthalmia, prevention of deafness by care of adenoids and tonsils, and allied themes. As the time is too short for much discussion, I can only recommend that our members should volunteer for the work with the ladies whose names will soon appear in the newspapers.

THE EXHIBIT AND PLACE OF MEETING OF THE STATE ASSOCIATION IN JUNE.

Various firms are inquiring of the State secretary if there will be any exhibit at the next State meeting, and I am asked to appoint a committee to name the place and to get ready for an exhibit. Such exhibits are of value, and should be obtained, not only from dealers in drugs and instruments, but from the publishers, for books contain the personal experience of men who have seen more cases than we are likely to see.

In conclusion, let me make it plain that I do not look for action now on all the topics which I have brought before you without any warning. We must make ready at once for "Baby Week" as well as for the meeting of the State Association. The other items, Prevention of Tuberculosis, Pensions for the Blind, and Malpractice Insurance, can be studied later on. I hope that somebody will volunteer for an illustrated paper on the "Disposal of Offal" for our April meeting. Otherwise, we shall be compelled to look for a paper from outside of Portland through the untiring energy of our secretary.

February 11, 1916.

**OSTEOMYELITIS OF THE RIGHT FEMUR COMPLICATED
BY FRACTURE SIMULATING SARCOMA.**

By FRANK H. JACKSON, M. D. F. A. C. S., HOULTON, ME.

The case to be reported presents several very interesting clinical features and as far as we are able to learn is somewhat of a rarity. Naturally from the first report and the clinical findings in the case it seemed as if amputation was indicated but as the report of the pathologist was not absolutely positive it was deemed best to wait. That we did so was most fortunate. It would have been a catastrophe to have gone ahead on the first report to receive later a negative one. L. G. Aged 10. Referred by Dr. P. E. Gilbert, of Ashland. Patient has had the usual diseases of infancy with seemingly good and complete recovery from each. Five years ago during an epidemic of diphtheria had a sore throat. No cultures made but was given anti-toxin. Recovery prompt. Was in excellent health up to middle of June, 1915, when he had an acute arthritis involving right knee and both elbow joints. The maxim temperature was 104.5 with a pulse of 150. Aspirin was given in large doses with quick and complete relief. There is some doubt as to the persistence of any pain in the right thigh following the attack of arthritis but if such was the case the child did not utter any complaints. About the middle of August, while at play, he received a blow on the posterior aspect of the right thigh.

The present illness dates from that injury, for immediately he began to complain of severe pain and in a few days the parents noticed that there was a swelling on the anterior aspect of the right thigh about four inches above the joint. The swelling has rapidly increased in size, is accompanied by severe pain, there has been sweating at night and a marked lowering of the general health. September 17th while moving in bed the patient said he felt something snap in his right thigh and the next day there was marked angular deformity of the shaft of the femur. Active motion was impossible on account of the severe pain as also was any passive attempt. The child was admitted to the Madigan Memorial Hospital on September 27th.

Examination showed the following: A pale, fairly well-nourished child, pupils dilated, evidently suffering from severe pain on slightest motion of the right thigh. To a surgical ear the examination of the heart and lungs was negative. Temperature was 100.4 with a pulse of 110-120. The liver and spleen are not palpable. On the right femur, three inches from the knee joint, is a fusiform swelling six inches in length, with a slight angulation about the middle. There is no redness

of the overlying skin, there is a marked egg shell crackle, no dilated veins. The muscles of the upper part of the thigh are edematous. The inguinal glands on that side are enlarged. The child rests with the thigh abducted and everted. September 28, 1915. Under ether I cut down upon the swelling which presented to my mind typical clinical appearance of a sarcoma of the femur. Specimens were removed and sent to Dr. F. N. Whittier, of the Bowdoin Medical School. October 5th the report from Dr. Whittier contained the following: "There were several pieces of bone. An attempt was made to section some of the softer tissues but the sections were not satisfactory owing to the bone. The sections obtained suggest sarcoma but the sections are so poor that it is impossible to make a positive diagnosis." In view of this seeming confirmation of the clinical findings I thought it best to ask the advice of Dr. W. B. Coley, of New York. He advised in view of Dr. Whittier's findings and the clinical status of the case to try the toxins that have given some help in such cases. The child was placed upon a general supporting treatment, motion of the thigh prevented by sand bags and we awaited further advice from Dr. Whittier. October 27th a report from Dr. Whittier was received in which he states that further study of the specimens sent have not borne out the indication of sarcoma. A typical section was sent to Dr. F. B. Mallory by Dr. Whittier and he reported that he confirmed Dr. Whittier's diagnosis of nonmalignancy.

We now had plainly to do with an osteomyelitis with spontaneous fracture, a far simpler procedure to deal with than what we feared at first. The general condition of the child has greatly improved and he seems in first-class shape to undergo operation. November 5, 1915. Ether anesthesia. Incision directly over the entire mass. The fracture is about the middle of the mass and is surrounded by an excessive exuberant granulating mass of tissue and soft callous. There is a large amount of plainly diseased bone. The callous and diseased bone removed, ends of bone sawed even and union aided by locking a fragment from the lower fragment into a notch cut in the upper practically after the dovetailing method of carpenters. Position of the bones were easily maintained. The leg was put up in a Buck's extension with drainage. For several days he had a profuse purulent discharge. December 12. Union firm, callus exuberant, position of thigh excellent, no shortening. General condition of patient excellent. Put up in plaster spica. January 12, 1916. Spica removed, wound healed, firm bony union with no shortening. Excessive formation of callus around point of union. Leg held by lateral splint from toes to axilla. January 18th, child discharged and referred by to family physician. General condition is excellent.

RULES AND REGULATIONS, PORTLAND MILK COMMISSION.

SECTION 1. License for the production and sale of "Inspected Milk" may be granted by the Portland Milk Commission for a period not exceeding one year, after an inspection of the premises where the said milk is to be produced by a representative of the Portland Milk Commission, and after all the requirements promulgated by the Commission have been provided for, and all of the conditions have been agreed to in writing by the producer.

SEC. 2. When all of the conditions and requirements have been met to the satisfaction of the Portland Milk Commission, the Commission may issue a license to use the term "Inspected Milk," and such licensee shall furnish milk-bottle caps of such design and with such inscription and statement as may be decided upon by the Commission, said caps to be ordered through the Commission.

STABLES.

SEC. 3. Stables shall be kept well whitewashed and shall be re-whitewashed at least twice yearly or oftener if deemed necessary by the Commission. They shall be kept clean and free from cobwebs, dirt, etc.

SEC. 4. Stables shall be provided with adequate ventilation, and each cow shall be provided with at least five hundred cubic feet of space.

SEC. 5. A sufficient number of windows shall be installed and so distributed as to provide adequate light. Such windows shall be kept reasonably clean.

SEC. 6. The manure shall be removed at least twice daily either to a properly screened pit not less than fifty feet from the stable, or to piles not less than three hundred feet from the stable, or spread directly upon the field.

Cows.

SEC. 7. Physical examination shall be made of the cows at least twice a year by a veterinarian approved by the Portland Board of Health.

SEC. 8. The tuberculin test shall be applied at least once a year by a veterinarian approved by the Portland Board of Health, and any cows reacting shall be promptly removed from the herd.

SEC. 9. No new cows shall be added until after they have passed the tuberculin test and a physical examination by a veterinarian approved by the Portland Board of Health.

SEC. 10. Cows shall be kept reasonably clean at all times. The udders shall be properly cleansed just before each milking.

MILK-ROOM.

SEC. 11. A milk-room that is clean, light and screened shall be provided for the cooling, bottling and storing of the milk and the operations incident thereto.

EMPLOYEES.

SEC. 12. All employees connected in any way with the handling of the milk shall be personally clean and free from any communicable disease.

SEC. 13. The hands of the milkers shall be properly cleansed and dry at the time of milking.

SEC. 14. The health authorities shall be notified at once if any communicable disease appears in any person having to do with the handling of the milk, or in the family of the milkman or producer. Under such circumstances, no milk shall be distributed until officially authorized in writing.

UTENSILS.

SEC. 15. All utensils and apparatus with which the milk comes in contact shall be thoroughly washed, and sterilized with steam under pressure, and shall be used for no other purpose than that for which they were designed.

SEC. 16. No milk bottles shall be removed from a house in which there is or recently has been a case of communicable disease until official permission is granted.

SEC. 17. Small-top milk pails or approved mechanical milkers shall be used.

MILK.

SEC. 18. No unwholesome food or food liable to taint the milk shall be fed to the cows.

SEC. 19. The milk shall not be strained in the cow stable, but shall be removed to the milk-room immediately after it is drawn. It shall be cooled to fifty degrees Fahrenheit, or below, immediately after it is drawn from the cow, and shall be kept at that temperature until it is delivered to the consumer which shall be within twenty-four hours from the time of milking.

SEC. 20. The milk shall be delivered in single-service containers, which shall be filled on the premises.

SEC. 21. The milk shall not contain bacteria in excess of 50,000 per cubic centimeter, and must be entirely free from pathogenic germs, antiseptics or preservatives.

SEC. 22. Bacteriological examinations shall be made daily by a bacteriologist approved by the Portland Board of Health, the expense of such examination to be borne by the producer.

INSPECTIONS.

SEC. 23. Routine inspection of the dairy shall be made by inspectors designated by the Portland Milk Commission.

SEC. 24. The dairy score shall not be less than a well-balanced score of 85 points, according to the official score card for dairy farms recommended by the Dairy Division of the U. S. Department of Agriculture.

SEC. 25. License to use the term "Inspected Milk" may be revoked at any time, after notice and hearing, for non-compliance with the regulations established by the Portland Milk Commission.

SEC. 26. The Commission reserves the right to revise or amend any or all of the above regulations after due notice to all producers.

APPROVED BY THE PORTLAND BOARD OF HEALTH, JANUARY 5, 1916.

F. E. CARMICHAEL, M. D.,
Chairman.

HEALTH ORGANIZATION.

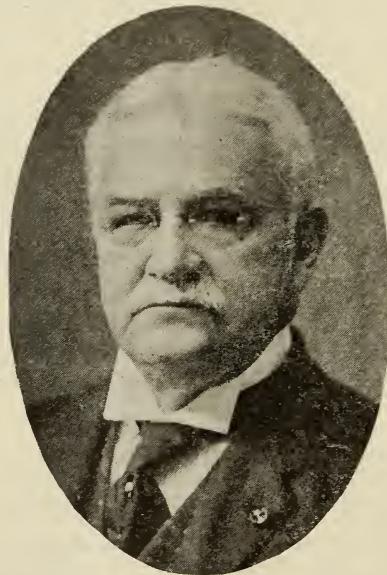
J. W. Kerr, Washington, D. C. (*Journal A. M. A.*, March 4, 1916), enumerates the needs of an efficient public health organization. He mentions and goes into detail on the fundamental needs, which are given by him in the following order: (1) active interest of the public and support of the health agencies; (2) adequate personnel and appropriations; (3) co-operation of health agencies with each other. By reason, also, of the priority of establishment of local health boards in the United States and their large measure of independence, they should be the best developed agencies we have for the prevention of disease and should continue as far as it is consistent with public safety, keeping in mind that certain situations may affect more than one community and be more than it can handle alone. The laws, therefore, should have state-wide application, and there should be one central state authority clothed with power to afford protection to all sections. The local units should be correlated, however, and also co-operate with the national and other state agencies. The powers and duties of the health organizations should be definitely fixed by law and there should be a single executive, whatever his title may be. Executive health matters can be thus conducted from a central office with appropriate divisions under it, such as administration, sanitary engineering, laboratories and research, vital statistics, etc., and a competent field force regularly organized should be provided. Various details of this plan, such as the size of the units, etc., are discussed by Kerr. The great body of physicians owes a duty to society, and should enter more fully into health work and co-operate with health officers, if they are to keep pace with the changing conditions and better the public welfare.

Necrology.

ALFRED MITCHELL, M. D.

Brunswick, 1837-1915.

The life of this recent comrade of ours has been annotated a number of times in the papers of the day, but all of the writers of these notices have overlooked the very essence of his army service as the basis of his successful career in medicine. For, although each of



the obituary papers in question gives lists of the battles in which his regiment, the IXth Maine, took part during the Civil War, not one of them mentions this vital fact: the experience, medical and surgical, which as an assistant surgeon he obtained in those battles. If, however, search is made in the right direction, and that is in the Records of the State in the Civil War, we find that during the campaign in which his regiment served, and to which he was attached, he did his share in attending more than 200 soldiers on the ordinary sick lists; that in one battle more than sixty men were brought in wounded on a single day and in another, more than ninety men needed emergency treatment. From such clues, we see that the experience which Dr.

Mitchell thus gained was, as a means of education, as effective as a year spent in a hospital of to-day.

It is easy to say that the surgery of the Civil War was poor in comparison with that which reigns supreme to-day, but every surgeon who recalls the changes even in the ten years last passed will know that in another decade the surgery of to-day will be looked back upon as inefficient.

This, now, is also the place to recall another forgotten fact, that, interrupting his medical studies at Brunswick before the war, Dr. Mitchell served a year of apprenticeship in the United States Marine Hospital at Portland, under the care of a genial practitioner, the late Dr. C. S. D. Fessenden, a skillful instructor in the special sort of cases due to exposure treated in that hospital.

In writing, then, of the medical career of Dr. Mitchell we must emphasize, first, the foundation stones in medicine and surgery upon which he could firmly plant his feet; after learning something from the printed books, those were his year of hospital activity and his army service.

As for the details of his life, otherwise, they are written in this way. He was born in Yarmouth, Maine, March 17, 1837, and he died at Brunswick, Sunday, June 17, 1915; a space of fully sixty years given to medicine in its many branches.

He was educated at the North Yarmouth Academy at Yarmouth, obtained his academic degree at Bowdoin in the class of 1859, then studied medicine at the Medical School of Maine, as it was at that time called. The learning thus gained, he broadened with his hospital and army service, and then retiring from the army in spite of a full surgeoncy promised him when his regiment came home decimated, he spent the winter of 1864-5 in New York and was graduated M. D. at Columbia in the spring of 1865. He then settled in Brunswick, where he practiced successfully for life. He became gradually well known as a sterling family practitioner; he believed in medicine as a part of medical practice, but as he increased in knowledge and experience he gradually turned more and more sturdily to a mature belief in nature's ability, combined with rest of body and mind, to eradicate disease.

As a man of instructive medicine, Dr. Mitchell occupied a position never before reached in Maine, for, between the years 1869 and 1911, when he retired from the Faculty of the Bowdoin Medical School, he filled one chair after another: Obstetrics, Diseases of Women and Children, Internal Medicine, and so on; and during most of this long term of years he acted as dean of the school. For more than forty years he was thus a bulwark of the school, and did

much to obtain that renown for it in which it is held to-day by conservative observers of medical teaching.

I regret that I cannot testify to Dr. Mitchell's skill as a lecturer, but it has been told me, that he never began a lecture without much preparation, and that he always bore the outward appearance of concentrating his mind on a series of serious messages which it was his business to deliver to the students. As a sort of aid to memory, he carried in his hand a pointer, with which he would gradually in the course of his appointed hour make his way half around an ancient table and back again. His great story, and all lecturers have their dear anecdotic child, was of a case in which he had long been wavering between a diagnosis of typhoid or acute tuberculosis, when, to his delight, the rose spots made their typical appearance. The disease was then clear, the patient saved, and with a cheerful face he would exclaim: "For those Rose Spots I would not have taken a hundred dollars apiece." As the years went round, those "Rose Spots" were annually remembered and with increasing value, like Bethlehem Steel of to-day.

Amongst the cultivated papers which Dr. Mitchell read before the Maine Medical Association, I may call attention to one, "On the Treatment of Perineal Lacerations", which brought out much discussion in 1884; and another, "On the Management of Abortion," which attracted much attention in 1887. His presidential address in 1893 was unique in its way, for after mentioning with a few kind words, and delicate touches of characterization, those of the Association who had died during the previous year, he defended a daily cultivation of the habit of systematic reading of the standard authors in medicine. Those who scorn reading, he argued, and rely "on my own experience as better than mere book learning," forget that books contain the mature experience of men of more extensive practice and wider experience than most practitioners are ever likely to enjoy. This, and other educational points, the President brought out in a genial, kindly manner, and made them still more enjoyable and instructive by the way in which they were pushed home to the minds of those who cared to listen. He also contributed to our "Transactions" a number of valuable biographical memoirs of deceased members and by his wide and varied reading was able to depict details of character and description of person, which illuminated all that he had to say concerning former friends in medicine. Finally, let it be said to the honor of Dr. Mitchell, that he carried off the Thomas Albert Foster prize in Medicine offered to members of the Maine Medical Association for the best essay "On Hereditary Causes of Disease."

Some of Dr. Mitchell's friends have suggested that he was what might be called a man of reticence of speech, one never given much to profuse use of words; but it always seemed to me, that to other people, who by education and intellectual study could mirror in his mind the cultivation of his own, he was always ready to express his thoughts and opinions with a freedom peculiar to himself.

Dr. Mitchell married on the 26th of December, 1865, Miss Abbie Ellen Swett, of Brunswick, Maine, and by her had four children. Mrs. Mitchell died some three years since, but the children survive. Amongst them we may note with pleasure our present member, Dr. Alfred Mitchell, Jr., of Portland, who has before him in the memory of his excellent father a permanent model and incentive to high excellence and superiority in the practice of medicine.

J. A. S.

DR. STEPHEN E. WEBBER,

Calais.

Dr. Stephen E. Webber, of Calais, died January 11th, and was buried in the Calais cemetery on the 14th. He leaves one son at Harvard and a son and daughter in Calais at the High School. His wife died about five or six years ago of pulmonary tuberculosis. He was 56 years of age and a graduate of Harvard Medical School. He enjoyed his practice, which was one of the largest in Calais. He is missed very much, as he was a good friend and a kind adviser.

BULLETIN NO. 3.

Dear Doctor:

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Editorial Comment.***Contract Practice.***

This is probably one of the largest factors tending to lower the standards of the medical profession, and has received a great deal of consideration in state and county societies during the past ten years. It is again called to our mind by the inauguration of the new Workmen's Compensation Act, and its possibilities along this line.

Contract practice in its true sense is in no wise objectionable, providing the physician or surgeon is paid in proportion to the services rendered, as is the case with the railroads and other large business corporations where the directors have recognized the necessity of employing experts, in both the legal and medical profession, to safeguard their interests, and find it economy to pay them liberally for their services.

These forms of contract do not aim to evade reasonable payment, but rather to keep in the employ of the corporation a man who has become proficient in this particular line of work.

When contracts are entered into by members of the medical profession calling for an unlimited amount of time and service, for small compensation annually, they not only injure the physician, but the profession which they represent. It would be difficult to enumerate the large number of lodges and fraternal organizations having the so-called "sick benefit" as an inducement to new members, and whose membership would average 300 to 400, while the lodge doctor gets \$200 or \$300 a year. It would be safe to say that if this physician made the necessary amount of calls that his compensation per visit would be only a fractional part of a dollar; even lodge members, although willing to use him in small matters, would usually employ

some one else when seriously sick or compelled to pay for services. The reason is obvious, in that the lodge doctor places so low a value on his time and services that they have very little confidence in him. It is only natural that the laity should take him at his own value, and should he continue to follow this work any number of years, he could never get away from the value he had once set.

Penobscot County Medical Society handled this matter in a very satisfactory way, in that all members agreed to give up their lodge work. The constitution and by-laws were amended so that no new member would be taken in who had anything to do with fraternal lodge benefits. This subject has been taken up in some few of the other county societies with the result that some action was taken towards eliminating this type of work.

Cumberland County has done the least, and is probably the worst offender. Shortly after the Workmen's Compensation Act went into effect, we learned of several instances where two or more physicians, who were working together in a community, immediately had an understanding that they would not enter into competition for contracts with corporations in their community. One county society has this under consideration, and we must concede the fact that the wording of the law leaves the matter of selecting the physician or surgeon to the corporation.

Under the provisions of this act, a large body of patients, who were, heretofore, considered charity cases, are placed in a position where they can pay their bills to a certain extent. The medical profession has always given freely of its time, regardless of whether or not the patient could pay. If this act provides some security for him, it is only right that the benefits should come to the men who do the work, and not to the corporation or insurance company. If we accomplish this end, the profession as a whole should take a firm stand against entering into contracts, particularly where they are thrown open to competition with the idea of getting physician's services for less than their actual value. There will probably be certain amendments to this law presented at our next Legislature, and some effort should be made to protect the interests of the profession.

Who would have thought that the tin can is a menace to the public health? The expert malaria investigators of the U. S. Public Health Service have found, however, that discarded tin cans containing rain water are breeding places for the mosquito, which is the sole agent in spreading malaria. A hole in the bottom of the empty can might have resulted in the saving of a human life. Certainly it would have assisted in preventing a debilitating illness. Empty tin cans have no business about the premises anyway, but if we must so decorate our back yards, let's see to it that the can has a hole in the bottom.

U. S. Public Health Service.

Book Reviews.

Bone-Graft Surgery.

By Fred H. Albee, A. B., M. D., F. A. C. S. W. B. Saunders Company, Philadelphia. Cloth, \$6.00 net; half morocco, \$7.50 net.

This book is a practical treatise upon the different uses of the autogenous bone splint.

It covers in particular the treatment of Pott's Disease and other lesions of the spine, the use of the bone-graft in fractures, in the remodeling and ankylosing of hip-joints, in the fixation of the knee-joint for various reasons and in the prevention of dislocation of the patella.

There are many other minor things considered, such as the making of a new fibula, the correction of club-foot, and the treatment of fractures of the face, hand and foot. This is all taken up from the standpoint of the bone splint or the bone wedge.

The volume contains over four hundred pages, is written in a clear, concise manner, and is very readable. The type is large and clear. There are three hundred and twenty-nine cuts and most of them are line-drawings, which make the best illustrations. Furthermore, the figures are well planned and indicate precisely the ideas of the author. Dr. Albee's work can be highly recommended to the profession, especially to those who are interested in the surgery of the bones and joints.

HAROLD A. PINGREE.

BLADDER TUMORS.

H. A. Kelly and William Neill, Baltimore (*Journal A. M. A.*, March 4, 1916), say that the past ten years have witnessed a remarkable and beneficent change in the treatment of bladder tumors by fulguration, for which credit belongs to Dr. Edwin Beer. "He has reduced the complex to the category of the simple, always a notable surgical achievement, so that now instead of putting these patients to bed and exposing them to the risks and discomforts of an operation, we treat them as ambulatory office patients and destroy the growth often in from one to several sittings". The greatest benefits are realized in recurrent cases as the patient continues the treatment at intervals until the trouble is finally eradicated, instead of having to undergo a new operation and a siege in the hospital. There is, nevertheless, a border line between cases manifestly best for fulguration and a small group which we are still inclined to reserve for surgery. They believe that the open aerocystoscope (Kelly's) has incontestable advantages for seeing these growths, determining their number and relations, and especially in most cases in enabling the surgeon to see and handle the pedicle and distinguish the pedunculated tumors from apparently sessile and malignant ones, and also to shorten the period of treatment by attacking the pedicle at once. They have found that two slightly diverging needles are valuable for fulguration. They are plunged into the substance of the pedicle and the current turned on as strong as the patient can stand it. They also can use the platinum cautery knives, formerly so much used in throat work, with the open cystoscope with greater advantage.

Abstracts from Current Literature.

Internal Treatment of Erysipelas.

By L. S. Rogers, M. D., Medical Record, January 15, 1916.

The author had two cases of erysipelas, one of the scalp and the other of the nose. The one of the scalp occurred in a colored man, with all the symptoms of a severe case of erysipelas. Both eyes were closed, there was high fever, rapid pulse, swelling of face and scalp. Tincture of iron was prescribed in twenty-five-drop doses every four hours with local applications. The physician was called out of town and on his return found the colored man apparently well. He had been taking iodine instead of iron, through the druggist's mistake. In the second case the physician prescribed tincture iodine in twenty-five-drop doses every four hours and at the end of four days the patient left the hospital well.

Certain Syphilitic Affections of the Heart and Aorta.

By Prof. J. M. Anders, Philadelphia, American Journal of the Medical Sciences, December, 1915.

The writer does not believe, with some writers, that syphilis is the chief cause of disease of these organs, but taken with rheumatism it heads the list. Cardiac manifestations may come after the first stage of syphilis, and may come in hereditary cases. The heart is the earliest organ attacked, and it is claimed that it alone may be affected. Among the commonest conditions found are myocarditis, aortic regurgitation, angina, and mesaortitis often resulting in aneurism. This latter is usually the chief complaint where it is combined with any of the others, and in this disease from 55 to 66% are due to syphilis. As to aneurism, syphilis is believed to be the cause in nearly all cases occurring under age 45. The ascending portion of the arch is the favorite site, and the lesions are frequently multiple. As over 60% of cases of aortic insufficiency are due to syphilis, all cases of this disease should be suspected, and, if no other cause is found, given the benefit of anti-syphilitic treatment. In myocarditis, the marked irregularity of the arrhythmia is noted by several observers as being somewhat characteristic, as is also the tonelessness of the first sound. As for angina, the writer says that every case in the early part of life is open to suspicion of a syphilitic cause. Prophylaxis in these cases is all important. Treatment in the second stage should be vigorous, as when a lesion has a firm hold it cannot be eradicated, and salvar san given at this time is dangerous.

H. J. E.

The Impossibility of Curing Syphilis by Salvarsan alone and the Dangers Arising from Insufficient Treatment.

By Charles M. Whitney, M. D., Boston, from the Interstate Medical Journal, February, 1916.

In this article Dr. Whitney informs the reader that it is now known that Salvarsan alone does not cure syphilis. That Salvarsan is not discarded for not being a complete cure, but is highly valued as an effective agent in the treatment. That its effect upon the lesions and manifestations is marvelous, but after one or two injections, even though no visible signs of the disease return, the blood often shows a marked positive Wassermann. He compares the past with the present treatment of syphilis by saying that in the earlier days it was customary to treat the primary lesion with powders and lotions until the secondary manifestations appeared. If antisyphilitic treatment were at once begun and these constitutional symptoms failed to appear, the patient frequently had doubts as to whether he really had the disease. That during the first year under treatment, recurrence of some of the manifestations served as a reminder and the patient anxiously reported at frequent intervals and carried out the prescribed treatment. At the end of the first year the patient would have few if any symptoms of the disease and being in a less nervous state would, perhaps, neglect treatment all together. At the present time the serum from the suspected sore, as early as possible, is examined by dark-field or India ink, and if the spirochaeta pallida is found the patient is immediately placed under treatment. He is immediately given Salvarsan intravenously at such intervals as seem best. The sore promptly heals. If secondary manifestations are present, the rash soon fades and the mucus membrane lesions disappear. As much is accomplished in a few days as it would take weeks with the former method of treatment. That to complete the cure, various forms of mercury and potassium iodide must be used. To determine the progress of the treatment and the cure of the disease, a Wassermann test of the blood and spinal fluid is made at intervals.

Dr. Whitney includes in his paper six interesting histories, and concludes by laying especial emphasis on the following facts:

"That the majority of patients have always neglected to take proper treatment for this disease because of its apparent mildness.

"That the use of Salvarsan alone does not cure syphilis, but because it apparently does, patients do not return for the needed after treatment by intramuscular injection of mercurials and other valuable remedies.

"That because of the apparent simplicity of the cure, and the absence of any external evidence of the disease in many cases, treat-

ment is now discontinued in a few weeks instead of a year under the older method.

"That one form of treatment alone must not be used to combat this treacherous disease, but that every known means, old and new, must be made use of to save our patients from future suffering and perhaps death!"

B. B. F.

A Collective Study of 2,000 Cases of "Twilight Sleep".

By A. J. Rengy, New York.

In this article Dr. Rengy, who has had personal experience with 300 cases in fifteen months, and who has received reports from 2,000 other cases, gives a resume of the recent standing of "Twilight Sleep", as it appears from this experience. After impressing again the fact that this method is applicable only to selected cases, mostly primipara, and that the constant personal supervision by a specially trained obstetrician is absolutely essential, he brings up this material question, "Is a labor to be regarded painless merely because a patient fails to recollect?" He concludes that the painlessness is only relative in all cases, and that it varies greatly within the limits of partial analgesia. The second stage is definitely prolonged in all cases, and the increase in low forceps operations is proportionate. He thinks that the adoption of the method should be decided for or against by its effectiveness on pain, not memory, and, as the amount of analgesia present is variable and doubtful, it is not proven to be the ultimate in our search to diminish the pain of the lying-in woman.

PERSONAL NOTE BY H. J. E.

In obstetrical literature as well as the best practice the use of nitrous oxid-oxygen anesthesia is fast taking the place of the much-vaunted Twilight Sleep. Because of reading I have done, and by talking with men who have used it, I concluded that this was at present the ideal way to give comfort without danger to the patient in labor. One of the greatest arguments in its favor is the possibility of immediately withdrawing the analgesic agent should any cause for so doing appear—something that is not possible once hypodermic medication has been given. I have only within the last two weeks received my own apparatus, and so have been able to try it out on but three cases, but in these it has acted splendidly, in one patient, a primipara of 41, being continued for nearly three hours in the last part of the first and throughout the second stage of labor. It seems that with the introduction of this means of analgesia, any need for the dangerous subcutaneous injection of hypnotic drugs has lost its usefulness.

Notices.

The American Medical Golfing Association.

In accordance with preliminary announcement made in the A. M. A. Journal previous to the last A. M. A. convention, the American Medical Golfing Association held its first tournament in San Francisco, June 21, 1915. Arrangements were then made for the organization and that is now complete with the following directors:

President—Wendell C. Phillips, New York.

Vice President—James Eaves, San Francisco.

Secretary and Treasurer—Will Walter, Chicago.

Plans are now being made for the second tournament to be held in Detroit at the forthcoming A. M. A. convention in June.

The directors have decided to list as charter members all fellows who shall have enrolled by April 1, 1916.

All fellows of the A. M. A. who play the game are eligible and may obtain the desired information from the Secretary and Treasurer, Dr. Will Walter, 122 S. Michigan Boulevard, Chicago.

Members of the British Medical Association have a similar organization for play at their annual meetings, and it is thought that this will add materially to the social interest of the A. M. A. as it has to the B. M. A. conventions.

The next meeting of the National Conference of Charities and Correction will be held in Indianapolis, from May 10th to 17th. Every phase of this question will be considered at this session and all interested should remember these dates.

DOUBLE INDUCED PNEUMOTHORAX.

E. VON ADELUNG, Oakland, Calif. (*Journal A. M. A.*, March 4, 1916), says three forms of induced pneumothorax may be practiced: 1. Unilateral pneumothorax, the common form of the operation. 2. Alternate pneumothorax, inflation of one plura and then, after absorption of the gas, inflation of the opposite side. This method succeeds in some cases, not cured by the first method. 3. Double pneumothorax, the simultaneous inflation of both pleurae. This, he thinks, is a new procedure and indicated only when threatening symptoms urge haste. The rationale of the method rests on the same data as does unilateral pneumothorax and on the fact that animal experiments indicate that life can be sustained by only one sixth of the normal lung area. During double pneumothorax hospital care is very desirable but not indispensable, as the cases have reported by him show. In fact, these cases show the practicability of doing double pneumothorax in ambulant cases. The patients in the cases he reports were all young persons, two females and two males, one of the latter a boy age 8, and an ambulant case. The other case was seriously complicated by chronic alcoholism with exacerbations, the patient being partly intoxicated at many of the treatments and he had alcoholic tremor for days at a time. The results in all these four cases were good and the symptoms materially bettered.

County News and Notes.

CUMBERLAND.

PORLTAND MEDICAL SOCIETY.

The thirty-ninth regular stated meeting of the Cumberland County Medical Society was held on Friday evening, February the 11th, at the Congress Square Hotel. The meeting was largely attended, there being over a hundred physicians present.

Dr. William C. Jensen, of West Pownal, and Dr. Elmon J. Noyes, of Lovell, were duly elected to membership. The names of Dr. James G. Jamieson and Dr. DeForest Weeks, of Portland, were presented as having made application for membership.

The paper of the evening was read by Dr. John L. Morse, of Boston, one of the country's leading pediatricians, his subject being "Acidosis". A lengthy discussion was indulged in by many of those present. The usual lunch was served after the meeting.

ADAM P. LEIGHTON, JR.,
Secretary.

PENOBCSCOT.

The regular monthly meeting of the Penobscot County Medical Association was held at the Bangor House, Tuesday evening, February 15th, Dr. John B. Thompson, Vice President, presiding. Drs. Roy A. Thomley and Carl R. O'Brien, of Bangor, and Alfred H. Schriver, of Brewer, were elected to membership.

The applications of Jas. D. Clement, of Orono, Wm. E. Emery and H. D. McNeil, of Bangor, were presented and referred to the Board of Censors.

After supper Dr. John L. Goodale, of Boston, read a paper on the diagnosis and management of the anaphylactic conditions of the upper air passages. Several patients were presented for diagnosis, which patients were sufferers from hay fever and asthma.

The following were present:

Dr. E. B. Sawyer, Bangor, Me.	Dr. W. C. Peters, Bangor, Me.
Dr. Lester Adams, Bangor, Me.	Dr. Wm. E. Emery, Bangor, Me.
Dr. Barbara Hunt, Bangor, Me.	Dr. A. E. Small, Bangor, Me.
Dr. W. L. Hunt, Bangor, Me.	Dr. W. H. Nason, Hampden, Me.
Dr. Jackson, E. Eddington, Me.	Dr. C. H. Bayard, Orono, Me.
Dr. G. G. Weld, Old Town, Me.	Dr. H. J. Milliken, Bangor, Me.
Dr. H. E. Thompson, Bangor, Me.	Dr. A. J. Bradbury, Old Town, Me.
Dr. H. F. Quinn, Bangor, Me.	Dr. R. N. Knowles, Bangor, Me.
Dr. C. R. O'Brien, Bangor, Me.	Dr. W. E. Whitney, Bangor, Me.

Dr. G. L. Landry, Old Town, Me.
 Dr. C. M. Thomas, Brewer, Me.
 Dr. Wm. P. McNally, Bangor, Me.
 Dr. G. M. Woodcock, Bangor, Me.
 Dr. D. A. Robinson, Bangor, Me.
 Dr. B. L. Bryant, Bangor, Me.
 Dr. J. B. Thompson, Bangor, Me.
 Dr. J. A. Lethiecq, Brewer, Me.
 Dr. W. C. Hall, Orono, Me.
 Dr. J. D. Clement, Orono, Me.
 Dr. G. B. Caulfield, Bangor, Me.
 Dr. Wm. Ellingwood, Bangor, Me.
 Dr. S. N. Marsh, W. Enfield, Me.
 Dr. A. K. P. Smith, Bangor, Me.
 Dr. S. J. Redman, Dexter, Me.
 Dr. J. A. Starrett, Bangor, Me.
 Dr. David McCann, Bangor, Me.
 Dr. Arthur Parcher, Bangor, Me.

Dr. H. T. Clough, Bangor, Me.
 Dr. Wm. C. Mason, Bangor, Me.
 Dr. E. M. Marquis, Old Town, Me.
 Dr. A. H. Twitchell, Old Town, Me.
 Dr. A. H. Schriver, Brewer, Me.
 Dr. A. A. Brown, Bangor, Me.
 Dr. L. S. Mason, Bangor, Me.
 Dr. E. E. Brown, Bangor, Me.
 Dr. W. E. Fellows, Bangor, Me.
 Dr. L. G. Wright, Hermon, Me.
 Dr. P. T. Haskell, Bangor, Me.
 Dr. H. M. Chapman, Bangor, Me.
 Dr. J. F. Cox, Bangor, Me.
 Dr. C. H. Burgess, Bangor, Me.
 Dr. C. S. Philbrick, Bangor, Me.
 Dr. D. W. Bunker, Bangor, Me.
 Dr. C. S. Bryant, Millinocket, Me.
 Dr. J. B. Woods, Bangor, Me.

PISCATAQUIS.

The last meeting of the Piscataquis County Medical Society was held in Guilford, January 15, 1916. A banquet was held at the Braeburn Hotel with the wives of the various members in attendance. In this county the physician's wives have a society of their own and their meeting was held at the residence of Dr. Potter. At the Medical Society meeting the following officers were elected: President, Dr. Edgar Flint, of Foxcroft; Vice President, Dr. James McFadyen, of Milo; Secretary, Dr. G. E. Dore, of Guilford; Legislative Committee, Dr. E. D. Merrill, of Foxcroft, and Dr. Harry Snow, of Milo; Delegate to State Convention, Dr. R. H. Marsh, of Guilford. The attendance for the past year has been good and some excellent programs offered.

For the coming year besides the usual professional papers a program embracing papers on medico-legal subjects, business methods, the conduction of autopsies, etc., will be offered from time to time.

WASHINGTON.

At the annual meeting of the Washington County Medical Society the following officers were appointed:

President, Dr. W. N. Miner; Vice President, Dr. J. L. Murphy, of Eastport; Secretary-Treasurer, Dr. H. B. Mason, of Calais; Delegate to the Maine Medical Association for one year, Dr. W. N. Miner, of Calais; Delegate to the Maine Medical Association for two years, Dr. Crane, of Dennysville; Censor for three years, Dr. W. H. Bunker, of Calais; Committee of Health and Legislation, Dr. Crane, of Dennysville, Dr. Longfellow, of Machias; Committee of Red

Cross Medical and Surgical Work, Dr. H. H. Best, of West Pem-
broke, Dr. H. B. Mason, of Calais, Dr. J. L. Murphy, of Eastport,
and Dr. C. E. Johnson, of Princeton.

A large number were present, many cases being reported and
discussed.

PERSONAL NEWS AND NOTES.

Dr. Charles G. Main, of St. Stephen, N. B., has been offered and
has accepted a commission as captain in the McGill University
Hospital in France and expects to leave in a few days for the front.
He is a graduate of McGill in 1892, has practiced in Edmonston and
St. Stephen. The best wishes of all will accompany him. Dr.
Sullivan, of St. Stephen, N. B., has been in France for nearly a year.

Dr. Harry Lawson, of Rolling Dam, N. B., has been in service in
hospitals in France and Egypt and is now with the Allied forces at
Salonika.

Dr. E. O. Thomas, another Charlotte County man, is with the
Harvard unit in France. The profession of Charlotte County is doing
its share of service in the mother country.

Dr. J. R. N. Smith, of Milltown, who, I believe, is the oldest
practicing physician in the two countries, has returned after a three
weeks' visit in Bangor and vicinity.

The St. Croix Medical Society, with Dr. F. I. Blair, of St.
Stephen, N. B., as president, and Dr. Marion, of Calais, as secretary,
is in a splendid flourishing condition. The men take an active part
at each meeting. The course as laid out by the American Medical
Association is taken up and followed closely and found to be of
extreme benefit to those who have the time to follow the work closely.
We recommend the adoption of this system of teaching to other
societies, as it has been very helpful to us.

W. N. MINOR.

Dr. C. W. Bray has returned from his annual hunting trip in
the South.

Dr. O. E. Haney is convalescent from a recent attack of influenza
complicated by an acute middle ear.

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No. 9

*INTESTINAL STASIS.

By DR. E. D. O'NEILL, Biddeford, Me.

At the last Congress of North American Surgeons, held in London, England, July, 1914, a great diversity of opinion existed between men of note as to the causes of disease, and from notes taken at that clinic I have prepared a short paper on intestinal stasis. Sir Arbuthnot Lane defines intestinal stasis as follows: By intestinal stasis is meant that the passage of the food along the alimentary canal takes place with such slowness that there is formed an excess of toxic matter, especially in the small intestine. Consequently the blood flow pours into the transforming and excretory organs a quantity of poison larger than they can eliminate. From this it results that all the tissues of the body, drenched in this blood, rich in poisons, degenerate and offer a diminished resistance to infection. A defective drainage has consequences which are deleterious to the organism in general, as well as to the individual tissues of which it is composed. Accepting this definition as Dr. Lane has given, we have practically a question of body drainage to consider.

The body may be compared to a hollow cylinder with an inner tube, which is twisted normally in its development, some parts being dilated, others contracted, while some side passages are enlarged into great organs, which by developing as diverticula are still patentous, and empty into one central tube. These side passages, which we call organs, may be compared with a great drainage or sewer system. Obstruction and retention in one part of the sewerage system means

*Read before the Maine Medical Association, June 10, 1915, at Poland Springs, Maine.

sooner or later contamination of the entire system drained by those canals. In the body there are three conditions which favor the development of toxic materials, warmth, moisture, bacteria. By having the body drainage system under proper inspection and care, tissue contamination can be prevented. However, in many instances there comes a time when the plumbing must receive direct attention, when the surgeon, like the expert plumber, must be called in. By patching and mending the drainage system, thus warding off trouble, or whether he shall employ more radical measures and eliminate defective parts, is a fine point to determine in each case.

A clear understanding of the causes of disease should be understood. We are told of the number of abnormal bands, veils and folds which are found in the abdominal cavity, and the unfortunate tendency to name things with the names of those who first described them. We have the bloodless fold of Treves, the mesenteric fold of Reid, Lane's bands and kinks, Jackson's membrane, Morris's cobwebs, Codman's drag and other named obstructions and adhesions. Dr. Lane's theory is that every known disease has its origin in the large intestine, due to intestinal stasis plus toxemia. He is undoubtedly right in his contention, but whether the toxemia is the direct consequence, or an indirect sequence of the effects on the nervous system, or on the ductless glands, is not clear. These are radical opinions, but clinically the results are undoubted.

TREATMENT.

We hear of the conservative and the radical treatment of chronic intestinal stasis. A clear understanding of these terms is important, and in my mind there is no hard, fast line of distinction between them. What in one case may seem radical treatment may in another be entirely conservative. The one who, by waiting, content with palliative measures, fears to employ surgery, when the delay renders necessary a severe surgical operation, is less conservative than the one who, by resorting to milder surgical operations at first, renders unnecessary the more severe operations. Thus the surgeon who urges immediate and radical interference may be, in reality, and in the light of the ultimate, the conservative one. A simple appendectomy, on the other hand, with division and suture of an early ileopelvic band, with proper after-care, may obviate many secondary changes, with far-reaching effects, eventuating, perhaps, in hopeless invalidism for the patient. A bankrupt body, with every organ mortgaged by toxic absorption, is a poor surgical risk, and many a derelict has become such on account of drifting, with medical interference and surgical delay until it is too late. If the drainage system has been neglected

until a part of the human plumbing must be removed, that is colectomy. In others, it is possible to sidetrack the damaged parts, that is short circuiting. In others it is possible the parts can be patched up, the tubes can be straightened and angles corrected. In fact, we are to-day feeling our way along, profiting by the experience of others. Many will be operated upon with the less severe procedures and will be cured, while some will eventually return for the more radical treatment. In the second class of cases we shall regret that the later procedures were not adopted in the beginning. By careful preliminary study of each case, and by thorough investigations of the actual conditions as seen upon the operating table, these mistakes will doubtless be obviated more and more in the future.

There are cases in which surgery is not necessary, and in which by means of hygienic measures, posture, diet, special exercise, liquid parafin and properly fitted belt, the patient may be prevented from drifting to a surgical operation.

Parafin is not a new remedy, but one that has been used for years. Credit is certainly due Dr. Lane for urging this simple remedy upon the profession for constipation. It lubricates the whole of the alimentary canal, is useful in all forms of stasis, no matter what the cause. Parafin stimulates the activity of the small intestine. Parafin is non-absorbable; no matter how large a quantity one takes, it simply passes through the body, keeping the bowels lubricated and absorbing the toxins. When the effective dose of parafin is found it is never necessary to increase it, but in most cases it can be gradually reduced. Cases in which the colon is markedly redundant or is obstructed by kinks, folds, adhesive bands, contractions and the like may often be saved from the surgeon's knife by the habitual use of parafin, a small inconvenience when compared with the risk of a surgical operation. Most laxatives increase the absorption of toxins by irritating and congesting the mucous membrane, thus lessening the filtering power and rendering it permeable to toxins. Parafin produces no irritation and protects the body against toxins, both by dissolving toxins and holding them in solution, and by the mechanical protection to the mucous membrane.

Proper attention to flushing the tissues by the drinking of plenty of water. And what kind of water can be best recommended? Why, Poland water.

My own experience, like that of many others, furnishes evidence of the correctness of Lane's views concerning the existence of the various bands, folds, veils and other structures within the abdomen, the kinking of the gastro-intestinal canal by these, and the production thereby of the condition to which Lane first applied the term intesti-

nal stasis. Dr. Mayo, at his clinic in Rochester, recently made the statement, in the hearing of the writer, that a short time ago he was able to say he was convinced as to the correctness of five per cent. of the claims of Lane with regard to stasis; now he has reached to forty per cent., and is progressing. Dr. Paterson, of London, says he has reached forty per cent. and is going on. If even this percentage of Lane's claims be established for stasis, a new era has come and a veritable renaissance has again dawned for medicine and surgery. With men like Paterson, Morrison, Stokes, Chappell, Percy, Twitchell and a host of others, exploring the field with Lane, which the pioneer has opened up to us, we may say that we are traveling hopefully.

DISCUSSION.

DR. ROBINSON: Mr. President, this work of Lane's has opened up a new line of thought to the medical profession, and it is curious to see how they have advanced along that line. We have found that a great many of the surgical operations have not cured the patients, and so people like Lane, of original ideas, began to study the reason for it. First, we thought we had found it in the kinks about the ileocecal valve, and he began by operating on those kinks. He found that that did not cure the patient. He found that a great many of those kinks were not inflammatory, but were, as he says, evolutionary. Then he turned his attention to the large intestine to see what could be done in regard to the stasis, which was the cause of this, and they began, as you know, to hitch up the stomach and hitch up the transverse colon, thinking that the ptosis was the whole reason for it. They soon found that that did not cure but a small proportion of the cases. Then he thought he would throw the whole large intestine out of the scheme, and so he began what he called his short circuiting, cutting off the small intestine a few inches from the ileocecal valve, and carrying it across to the sigmoid. The patients began to be very much better, and he thought they were cured; but a little while later some of these patients began to come back to him with all their first symptoms returning. Opening up one of those he found that the large intestine was filled with fecal accumulation that had crowded back in spite of his short circuiting. Then, remembering Metchnikoff's statement that we would be better off without the large intestine altogether, because there was the seat of old age, he deliberately removed the whole of the large intestine, and the patient was immediately very much improved. Then, in order to overcome this crowding back, he anastomosized the small intestine well down into the rectum, thinking that would obviate the crowding back into the large intestine. It was soon found that that would not cure, but that, at the junction, the small intestine began to make a colon of itself and enlarge, and the feces were crowded back into the small intestine in the same way. Some other workers, like Mayo, of Rochester, recognizing that from the middle of the transverse colon to the sigmoid was simply a drainage canal, and from the ileocecal valve to that part there was still some absorptive work, and that there was where the active trouble began, have cut off the ascending colon and a part of the transverse, over as far as the mesentery went, and then brought up the small intestine, cutting it off at the ileocecal valve, and making an anastomosis with the transverse colon. That was a less operation than that of Lane's and seemed to cure the patients. Now we are hearing that all of this surgery is not curative. Finally, a doctor who was in London

last summer told me that Dr. Lane's star case, operated on four years ago and supposed to be completely cured, is now returning to Lane for something more to be done, because his original symptoms are returning. Now we are being told that none of this surgery is necessary, but that they can be cured by medicine, by exercise, by diet, and by the various orthopedic remedies. All this reminds me of the old song our grandfathers used to sing:

"John Barleycorn, they buried him; put earth above his head;
Then swore an oath, a solemn oath, John Barleycorn was dead;
But when the spring came on apace, and rains began to fall,
John Barleycorn sprang up again, and so surprised them all."

(Applause.)

THE PRESIDENT: Dr. Webber, of Calais, down for this discussion, is detained at home on account of illness, and the paper is now open for general discussion.

DR. RICHARD F. CHASE: Mr. President, I was not aware of the contents of either of the last two papers at the time the following notes were jotted down. Consequently the views here expressed are uninfluenced by either paper. The time allotted does not permit me to say much on these subjects, but my feelings regarding them are so strong that I cannot refrain from a few words; and, if some of those words have already been spoken, they are repeated on account of the considerable weight they carry in my estimation. An editorial of the A. M. A. Journal states: "We do not stand alone in the strictures which we have at times placed on the wanton use of the word 'autointoxication', as is made clear by Professor Adami, who says, 'The word, in short (autointoxication), should and must be banished from the vocabulary of all self-respecting medical men. It is absurd to jumble all of the various conditions attributed to it into one common heap; our duty is to recognize and classify each different form—to analyze before we synthesize'". In another editorial of the same Journal they say, "Operative interference of late has been suggested by Lane and others as a palliative in chronic constipation (intestinal stasis). Lane's operation and the autointoxication hypothesis go hand in hand. Neither of them finds unqualified or hearty favor from those who emphasize the possibilities of rational physical and dietetic therapy".

I present these comments, because I believe they represent the views of many of the best medical men in the country. It is by no means always easy to prove the existence of intestinal stasis, and to prove an autointoxication resulting therefrom is a yet more difficult proposition. Dr. Janeway, when asked to discuss this subject, recently said: "I never in my life have made the diagnosis of autointoxication".

It has been my experience that most cases diagnosed as chronic constipation, or intestinal stasis, or as autointoxication, are relieved or cured of their symptoms if the proper medical measures are taken with them, and there is nothing particularly new or mysterious about such measures.

Intestinal stasis, autointoxication, indicanuria, the bacillus Bulgaricus, Russian mineral oil and Lane's iliosigmoidostomy are popular terms of the day. Chronic constipation, lack of exercise, overeating, common sense diet, and the old rational therapeutic measures for constipation seem to have been forgotten. Watch out for the next five years and see which of these combination of terms is then on top.

DR. O'NEILL: Mr. President, I wish to say for the benefit of those who have not used the oil that Dr. Lane advises a half ounce every night.

*INTESTINAL TOXEMIA.

By H. H. ROBERTS, M. D., Poland Spring, Maine.

In using the term intestinal toxemia, we do so to define a condition within the intestinal tract. The absorption of the toxic material generated therein, as a result of the presence of bacteria and other non-invasive organisms, will produce well-marked local and general symptoms.

Some writers do not agree that there can exist a state of intestinal toxemia, because the bacterial organism which enters into the process of the toxic material has not been clearly identified. Experimental research has demonstrated that there is no well-defined classification of the bacterial organisms present, yet there is a well-defined toxic condition. The very fact that this poison and toxic condition is present within the intestinal tract is sufficient, regardless of the variety or form. The removal from the intestines of this lodgment of infective material removes the toxic condition.

In discussing this subject, I wish to make it clear that we are considering the results of a condition and are not seeking to identify any group or set of bacterial organisms. One of the most important factors in the etiology of systemic disease is some focal point of infection. This focal location may be in various parts of the body and is frequently unrecognized until serious damage has resulted to the organism of the body.

A thorough examination of systemic conditions will often reveal a number of points of infection. Also, we may discover secondary infection which may, by its irritating effect, intensify or prolong the systemic condition which had its origin in the primary foci.

The toxic condition, as the result of intestinal absorption, will differ only from other toxemias which may be produced by drugs and other poisons or toxins, inasmuch as they are produced at some point of bacterial lodgment within the body.

I believe that if careful study is given to focal points of infection, and a more thorough investigation given to the systemic results of such infection, that many of the acute diseases could be corrected. With early recognition of the primary source, many chronic diseases, with their serious complications, can be arrested. Experience has demonstrated, beyond the experimental stage, that many of the acute and the majority of the chronic diseases have their origin, as the result of the poisonous toxins developed, within the intestinal tract. This, by either its direct or indirect effect, will

*Read before Maine Medical Association June 10, 1915, at Poland Spring, Maine.

lower the vital resistance and render the patient more susceptible to other diseases.

The study and investigation of the exudates from local foci will invariably reveal the presence of various bacteria. In experimenting with various strains obtained from cultures made from focal points of infection, it has been shown that the same disease can be produced in the inoculated animal. Strains made from the exudates of patients with arthritis or rheumatic fever will produce arthritis. Strains made from patients with endocarditis will cause endocarditis to be developed. Strains made from patients suffering with pericarditis, myositis, cholecystitis, chronic arthritis, etc., have resulted in the production of the respective lesions in the experimental animal, thus proving beyond a doubt that many of these diseases have a specific source of development and that the primary source must have a focal point of infection.

It has been proven that in the focus of infection there are strains which seem to have a special affinity for certain tissues and organs of the body, such as the heart, arteries, serous membrane, etc. Another important factor, revealed by laboratory investigation, is that the oxygen supply in the field of the focus is an important means of increasing or inhibiting the development of the toxemia. The increased supply of oxygen will bring about certain characteristic results, while a diminished supply will produce directly opposite results. This is worthy of note when we consider that many of the systemic diseases are influenced by the oxygen supply. We know that there are micro-organisms which, when introduced into the system, will be infectious, yet they do not have the power of self-invasion. They require inoculation in quantities or must have some reduction of the local and general resistance of the individual before they can multiply and cause general systemic infection. This class of pathogenic bacteria possesses the power to produce poisons or toxins rather than the power to invade the body.

The primary focus of the micro-organism is determined by the path of invasion and the toxins generated thereby which have an affinity for certain tissues or organs, shown by the secondary foci or location. Any condition or lowered vitality of any organ or tissue, through lack of nutrition or injury, will render the patient more susceptible to infection and will require less of the toxins to cause systemic or localized infection.

In the chronic diseases the toxins are absorbed slowly, or there may be some protective resistance, so that there is a gradual infection which may take years for development, as in cases of arteriosclerosis and like conditions.

When the normal functions of the body are active, the intestinal secretions, the ductless glands and other vital forces perform their work without interruption. The intestinal secretion prohibits the development of bacteria, especially when assisted by a normal stomach, liver and pancreas.

Many attempts have been made to secure some drug which would destroy intestinal infection, but without results. The only thorough method of rendering the intestines free from infection is by removing the media which propagates the development of the infection.

Diminished oxygen supply in the tissues and organs of the body bring about characteristic results. This lack of oxygen invites the development of bacteria. This, with a diminished oxygen supply, produces a field for bacterial invasion. With bacterial contamination there is readily produced toxic material with its accompanying exudates. The faulty secretion of the alimentary tract develops imperfect digestion.

Such an accumulation within the intestines impairs the normal peristalsis. With the normal contractile and expulsive powers of the intestines diminished, there will be retention, and with such retention there will be further contamination. The infected intestinal tract not only is producing toxic and other poisonous material, which is being absorbed to a more or less degree within the body, but the condition also has an injurious effect upon the mucosa and muscular supply of the intestines as well. The presence of this infected material within the intestines weakens the structural mechanism, so that there may result a condition of inflammation, or colitis, and perhaps the further stage of visceroptosis.

The teachings and theory of Lane are familiar subjects, but the practical demonstrations of Lane's kinks and intestinal stasis are not verified by clinical experience. I am thoroughly convinced that Lane's kinks are but secondary to intestinal infection. His description of the symptoms following intestinal stasis are identical with those of intestinal toxemia. We know that in intestinal stasis, unless there is some organic lesion or real mechanical obstruction present that is interfering with the intestinal drainage, there will be no symptom of toxemia. A condition of constipation may exist for a long time and yet there will be no symptoms of toxemia.

Iliac stasis is a physiological condition caused by activity of the ileocecal sphincter. Any disease within the neighborhood of the cecum which causes insufficiency or muscular spasm will increase the stasis. Loops of the intestines may hang down into the pelvis, yet stasis will not result only where such loops may cause a stenosis.

The cecum or transverse colon may be in the true pelvis and yet perfect health be maintained. Without some infection of the intestinal tract with a toxic material present, interfering with the normal function and supply of the intestines, there will be no kinks or stasis with toxemia. Lane's kinks are, therefore, secondary, and the only way to remove same is to remove the primary source of infection and in this way restore the intestine to its normal capacity.

I do not believe there is another part of the body that is more neglected than the intestinal tract. How many cases of gastralgia, indigestion, hypochlorhydria, chronic gastric catarrh, etc., have been assigned to cholecystitis as the primary cause for the stomach disturbance? How many cases of indigestion and gastritis have been attributed to toxic poisons from the intestinal tract?

I believe that, as the result of intestinal toxemia, neuritis, rheumatism, nephritis, dyspepsia, cholecystitis, high blood pressure, hardening of the arteries, nervous conditions, especially neurasthenia, have their origin from intestinal poison. Alimentary glycosuria is frequently diagnosed as true diabetes. Dizziness, mistaken for high arterial tension, acetonuria and indicanuria, is a most constant symptom. Muscular pains and loss of weight are prominent symptoms. Restless sleep and persistent insomnia are predominating symptoms. Enterogenous cyanosis is often present. The urinary findings are characteristic. Hyperthyroidism and exophthalmic goiter and many other conditions have been attributed to toxic infection received from the intestinal canal.

Micro-organisms entering the intestinal tract are subjected to the action of the acidity of the stomach, the alkalinity of the intestines and the bile, also other intestinal bacteria already present. The oxygen supply will furnish one of the conditions whether they are to survive or succumb. Therefore, the mechanical defence of the mucous membrane, the intestinal secretions and the vital resistance will have much to do with the safeguarding of the invasion of infecting micro-organisms. If there is impairment of the gastric secretion, if there is deficient bile, if the intestinal secretion is diminished, then the protective mechanism of the intestines is weakened and the invasion of infective bacteria is comparatively easy.

Recognizing the focal infection as being the direct cause of systemic infection, the most logical course is to remove the source of infection, if we are to improve systemic conditions. For this purpose, in my judgment, we have a most perfect agent in the form of pure castor oil. It should be pure, and when I say pure I mean the very best product possible to procure, free from any rancid or other contamination. The dose should not be given large enough to produce

any cathartic effect, for this will destroy the beneficial results. The oil should be given every night for two weeks upon retiring. A brisk cathartic should be given every seven days. The oil not only has an inhibiting effect upon the bacterial development and their toxic proliferation, but by its dissolving nature the thick, tenacious exudate which accumulates within the caliber of the intestines will be disintegrated. The repeated small doses are the only reliable means of cleansing the intestines of the offending media. The practice of giving an occasional cathartic dose of oil will have no beneficial results, as far as any curative powers are concerned.

Nothing in my judgment is more injurious than the habitual taking of some of the mineral oils. Mineral oils and saline cathartics given in sufficient doses to produce cathartic results are very injurious, not only impairing the stomach and intestinal secretions, but opening up the avenue for more prompt and thorough absorption of the toxins present. Calomel, blue mass, mineral oils, saline cathartics, etc., while producing temporary effect, have no curative results whatever and only intensify the condition present and injure the already impaired tract. The continued use of the mineral oils will produce an atony of the intestines. The exudate which surrounds certain portions of the intestinal walls is so tenacious that the most powerful cathartic will not remove it. The small brooklet, winding its way down the mountain side, will affect the boulders in its path in the same way, running over them, running around them, but never through them.

The treatment of the patient should be individual; routines are not productive of the best result in any condition. The cause which produces the mechanical defect for bacterial invasion is not the same in every individual. It is imperative in every case to first remove the seat of focal infection. The condition which has made it possible for the focal infection to exist must be treated as indicated.

Any impairment or derangement of the gastric and intestinal secretion must be corrected. Visceroptosis, if present, must be corrected by appropriate abdominal support. A course of treatment with the sinusoidal current will be of much benefit in correcting the visceroptosis.

Galvanic and faradic treatments are curative, when given with care and discretion. The high frequency currents are of special value. Baths and hydrotherapy are splendid adjuncts in the cases with impaired nerve supply. General tonic treatments, oxygen baths, Nauheim treatment, etc., all have their place and satisfactory return may be secured when properly given.

A visit to some of the spas, seaside resorts or the mountain retreats will bring satisfactory results. Special exercise in the open air, followed by invigorating baths and dry rubs, diet selected for each individual case, pleasant surroundings, etc., are all conducive for recovery. Sero-bacterins and autogenous vaccines are indicated in some cases and give good results.

The deficiency of the oxidizing powers may be reinforced by giving ten grain doses of a 25 per cent. of magnesium dioxide mixture, commercially known as magnesium perhydrol. This should be given on an empty stomach, preferably before meals. The best result is secured by having the preparation put up in tablet form, coated with either salol or keratin, so as to prevent any deleterious effect that might result from coming in contact with the gastric secretion. General tonic treatment and special attention to the secondary infection, whether it be the heart, liver, arteries, nervous system or some other condition, is always indicated.

We should bear in mind, in the treatment of all chronic conditions of the system, that the main feature is to remove, if possible, the cause. The system should be fortified and the patient rendered immune against any further infection. This can be accomplished best by teaching our patients the system of rational living, the importance of wholesome food and the value of foods. We should impress upon them the importance of having a systematic examination made of the body at least once every year. If this is practiced by the physician and the patients know the value of such a procedure, many of the conditions which arise, especially after the age of forty, could be prevented.

DR. COUSINS: Mr. Chairman and Members of the Association: I have listened with much interest to the very instructive paper which Dr. Roberts has presented. I had the privilege of reading this paper before it was presented, so I cannot say that I did not know its contents. The paper shows, if you will investigate it carefully, that the drift of surgery is toward medicine; in other words, the preparation of the patient is more essential than the operation itself. A great many who come to our hospitals for operation would get along very comfortably, and would live a long time, without it. The signs of the times are in my opinion that there will be in the future more real surgery and less operating. The great field for young men to enter is scientific medicine. Better results will thereby be attained, with less necessity for surgery. I hope you people will differentiate between operations, or operating and surgery. There are a great many operators, but few surgeons. I have been accused of keeping patients in my hospital longer than necessary because I wanted the board. That may be true; but I will tell you what I want more. I had rather have the patient stay a few days too long than not long enough. When you thoroughly and carefully explain to your patient what you are trying to do for him, he will usually readily acquiesce therein and submit himself for treatment, whether surgical or otherwise.

I have followed very carefully the instructions given by many of the prominent surgeons of this country, and I think that Murphy, of Chicago, when he first introduced the so-called "Murphy drip", did much to prevent the so-called suppression of urine in peritonitis, which we used to dread. We always said that the moment a heart became very rapid, we knew that there was peritonitis. Now I do not think that is so. You get a very rapid heart with a low temperature and no distention of the bowels. That does not necessarily mean that you have peritonitis; it means that you have an endocarditis as a result of one of these infections and the peritoneum is not acting, is not doing anything. You have then another effect; you have a paralysis of the intestines and cannot get a free evacuation of the bowels and in that way eliminate. Then we say, unfortunately the kidneys did not act. The reason they did not act was that there was too much toxin in the system before we began to operate, and it continued there. It is often said that a person dies of shock following an accident. That is not necessarily so. It has been proven experimentally that shock or trauma of any kind produces a condition of acidosis, which, if the patient is given time to recover from or given sufficient opiates to relieve the mental condition, the operation will be a success, although, had it been done immediately, it would have proved fatal. It has been demonstrated that acidosis produces the death of a great many patients when it should not. Now my method, briefly, of preparing a patient is to put him to bed; begin to gently move out the bowels—not blow them out but gently move them; give them a rectal instillation of water, salt solution, perhaps soda solution, at the rate of 25 drops a minute for three hours night and morning. You will then find—

THE PRESIDENT: Your time has expired, Dr. Cousins. The next to discuss the paper is Dr. E. S. Cummings, of Lewiston.

DR. CUMMINGS: Mr. President, Members, and Ladies: I have listened to the paper with a great deal of pleasure. I do not know as there is a great deal to elaborate upon the paper or a great deal to criticize. There are a few points upon which I shall touch. It seems to me that intestinal toxemia is not necessarily due entirely to fecal infection. I think we have a great many cases of intestinal toxemia which are due to a general condition of the intestine; we have a faulty digestion. The proteid material especially is not properly digested, and we have it in such shape that when absorbed it acts on the system as a toxin. This, of course, may be a general condition through the entire intestinal tract.

As to kinks, it seems to me that here we have a condition like lots of things in medicine, where it is hard to define cause and effect. I can see plainly where a fecal infection, and those conditions, with the exudate, may cause kinks due to the lack of muscular control of the intestine; but I can also see that a kink to start with may be the cause of an intestinal toxemia, producing stasis. I think it is one of those conditions in which it is very hard to state positively that one thing is always the cause of the other, and that the other is always secondary.

Another thing. I think that the personal equation has a good deal to do with the condition. As we see in many cases in life, we may have a person who abuses himself with alcohol and other causes; yet he lives to a good old age. There may be a man living in the next house who has always lived a straight life and used no alcohol, and he will succumb to a heart or kidney lesion at an early age. I think the personal equation in some of these cases has a good deal to do with it. In fact, I know that, in making X-ray examinations of people for other things, you will find a great displacement of the colon, the stomach and other abdominal organs, and still they will be apparently suffering not at all from that

condition; whereas another person may have a similar trouble, with a little kink perhaps in one part of the digestive tract, and having a great deal of trouble therefrom. I have been surprised in a way lately at the large number of cases that I have had referred to me of high blood pressure undoubtedly due to intestinal toxemia. I think that is one of the results of intestinal toxemia which is becoming more prominent at the present time; and, if those cases are taken in time and given proper eliminative treatment with the auto-condensation treatment with the high frequency current, you will get marvelous results. I have had patients referred to me with a pressure of 200 to 280, and under this eliminative treatment, the electrical treatment, I have got marvelous results. I have in mind a lady forty-five years old who was under my care, and my diagnosis in that case was intestinal toxemia. She had a pressure of 280. She has been under my care for about two months and she has gone without a treatment for ten or eleven days lately, and the pressure has been only 150 when she has come back. It is remarkable the results and the difference in feeling that these patients have after a few treatments.

I think that the writer of the paper in his treatment has shown a good deal of knowledge in the right way. I think that his treatment so far as cathartics go is very reasonable. I believe that the patient should have one good clearing out during the week, with the small dose of physic used daily; and I can see where a good, pure, castor oil would be one of the best things to use.

His suggestion of people, especially above the age of forty, having an examination occasionally by a physician would appear to me to be a very good one. I think that many cases that go on to arteriosclerosis could be saved if they made their appearance before a physician and had a careful examination made every six months, or even once a year. I think if they could be gotten at at the start, they could be saved.

THE PRESIDENT: Gentlemen, the paper is now open for general discussion.

DR. HARDY: Mr. President, there are two features in the way of treatment that have not been mentioned and which I consider of a great deal of importance. First, the matter of exercise; and, secondly, diet. I think that in our practice we find these cases much less frequent among the workingmen. I believe the bucksaw is a good preventive for this sort of thing. I believe also that one of the most important features in the treatment of intestinal stasis is the diet. I think it is wise to measure the diet and make sure that the patient is getting enough nutrition and suitable nutrition.

THE PRESIDENT: If there is nothing further, Dr. Roberts will close the discussion.

DR. ROBERTS: Mr. President, I do not know that I have anything to add, except that I would like to call the attention of Dr. Hardy to the exercises that I specified—special exercises. That diet is important is true, but if you neglect the gastric secretion or the intestinal secretion the diet will avail but little. That is the reason I specified that the cases must be treated individually, depending altogether on the diagnosis. The treatment throughout is individual treatment.

Seventy-six out of eighty-seven cases of typhoid fever which occurred in a recent outbreak have been traced by the United States Public Health Service to infected milk. Had the first cases been reported to a trained health officer the outbreak could have been stamped out promptly. When will we learn that disease prevention is sure and cheap?

*REPORT OF THE HOUSE OF DELEGATES.

Mr. President and Gentlemen :

The House of Delegates has held five meetings. The first meeting, following the change in the By-Laws made two years ago, was held at eight o'clock, the evening before the regular session of yesterday. All the counties were represented except one, Waldo. The following business was transacted :

All appropriations to the various committees for the coming year were withdrawn, also the scholarship to the Maine Medical School.

The salary of the Secretary and Editor of the Journal were cut one-half.

That section of the By-laws which states that the Treasurer shall be paid twenty-five dollars a year was stricken out.

No appropriations were made for the traveling expenses of the Councilors, or for the purchase of badges next year.

These reductions and omissions were made necessary by the lack of funds in the treasury, and an endeavor to live within our income.

The reports of the various committees were heard and approved. Practically all the counties increased their membership this year, and the State Association now numbers over seven hundred.

The number registered at this session is three hundred and forty-six.

REPORT OF THE COUNCIL.

The Council met after the last meeting of the House of Delegates and audited the books of the Treasurer. They were found correct. They also approved of the appropriations of the House and the reductions made.

JOHN B. THOMPSON,
Secretary.

President, E. E. Holt, Portland.

First Vice-President, H. B. Mason, Calais.

Second Vice-President, H. A. Snow, Milo.

BOARD OF COUNCILORS.

First District, F. N. Whittier, Brunswick.

Second District, G. L. Pratt, Farmington.

*Through some oversight these reports did not appear in the official transactions.

COMMITTEES.
ON SCIENTIFIC WORK.

F. Y. Gilbert, Portland, H. E. Milliken, Portland,
J. B. Thompson, Bangor (*ex officio*).

ON PUBLIC POLICY AND LEGISLATION.

D. A. Robinson, Bangor, S. J. Beach, Augusta,
T. E. Hardy, Waterville, E. E. Holt, Portland (*ex officio*),
J. B. Thompson, Bangor (*ex officio*).

ON VENEREAL DISEASES AND THEIR PREVENTION.

F. N. Whittier, Brunswick, R. A. Holland, Calais,
A. L. Stanwood, Rumford, W. F. Hart, Camden.

ON NECROLOGY.

James A. Spalding, Portland.

CANCER COMMITTEE.

S. E. Webber, Calais, H. H. Brock, Portland,
W. M. Spear, Rockland.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

W. C. Peters, Bangor, H. L. Bartlett, Norway.

VISITORS TO THE MEDICAL SCHOOL OF MAINE.

Frank E. Leslie, Andover, Frank E. Sleeper, Sabattus.

DELEGATE TO THE NATIONAL LEGISLATIVE COUNCIL.

W. G. Chamberlain, Fort Fairfield.

DELEGATE TO THE NATIONAL COUNCIL ON MEDICAL EDUCATION.

A. S. Thayer, Portland.

CHAIRMAN COMMITTEE ON PUBLIC HEALTH AMONG WOMEN.

Lucinda B. Hatch, Portland.

ON HEALTH AND PUBLIC INSTRUCTION.

Lucinda B. Hatch, Portland, S. J. Bassford, Portland,
C. B. Sylvester, Harrison.

COMMITTEE TO REPRESENT MAINE AT THE ANTI-TUBERCULOSIS
MEETING.

A. L. Smith, Machias, T. E. Hardy, Waterville.

REPORT OF THE NECROLOGIST FOR THE YEARS 1914-15.

Mr. President and Fellow Members of the Association:

I regret to report, since our last meeting, the deaths of the following members, after the accomplishment of good work in medicine. Each did, to the best of his ability, the task set before him in the practice of his art:

Frank Newton Barker, Norway.
Frederick Leander Davis, Biddeford.
Arthur Scott Gilson, Portland.
Crowell Carrington Hall, Dover.
Frank Henry Hobbs, Waterboro.
Jacob Lyman Horr, Westbrook.
Wellington Johnson, Augusta.
Ernest W. Russell, Lewiston.
Fred Milton Smith, Portland.
Thomas Perkins Smith, Westbrook.
Benjamin Franklin Sturgis, Auburn.

A few words of eulogy and biographical data concerning these, our comrades in medicine, have already been or will, ultimately, be printed in our Journal. I would suggest that more complete information and better notices would be obtained for those who are interested in deceased members, if the County Secretaries would communicate directly with the appointed necrologist and forward to him, immediately after any death of members, the local newspapers with such information as they contain. In this way, more accurate records would be possible, than where this work is left entirely to the necrologist, and adds to his already difficult labors in finding out what those who have gone before us have accomplished.

JAMES A. SPALDING, *Necrologist.*

LEUKOPENIA IN TYPHOID.

J. H. Austin and S. S. Leopold, Philadelphia (*Journal A. M. A.*, April 8, 1916), report a case of typhoid fever attended with a very unusual degree of polymorphonuclear leukopenia occurring during the third week of the disease, with a less striking but still pronounced increase of the lymphocytes. The unusual leukocytic picture observed is shown in tabulated form, the absolute polymorphonuclear count going as low as 38 and 81 on the seventeenth and twentieth days, respectively, while a few days later it had become approximately normal. An investigation was made to discover any toxic cause, drug or otherwise, which might have been responsible, but was without avail. The authors regard it, therefore, as extreme exaggeration of the characteristic tendency toward reduction of the polymorphonuclears which occurs ordinarily in typhoid. In other diseases there are three cases that have been reported comparable to this one, but all differ in that the patient was in an agonal state at the time and in one at least it was associated with a severe injury of the bone marrow.

Necrology.

DR. ALBERT FRANCIS MURCH.

Westbrook, 1846-1916.

Dr. Murch, well known throughout Cumberland County, and who had been in poor health for some years past, suffering from rheumatism complicated with one stroke of apoplexy following another, died at his home in Westbrook, Thursday, January 27, 1916, at the age of 69 years. He had practiced in that city for nearly thirty years in all, but had limited his work to insurance examinations, chiefly, for the last few years of his life, as he was unable from his enfeebled condition to successfully attend to patients at any distance from his home. Tall, erect in stature and active in his movements in his younger years, it was sad toward the end to see him moving about crippled at a comparatively early age.

The son of Daniel and Harriett Wescott Murch, he was born in Gorham, October 4, 1846, and educated at a private school in Standish and afterward at Gorham. A first-rate mathematician at an early age, he began to teach school at Bridgton when hardly sixteen years old. He used to tell how he boarded around in the district with the people who would bid the lowest to the town for the privilege of entertaining him, the lowest price he ever boarded for being ninety cents a week. Saving every possible cent in his expenses, he kept on with his aim to get a good education, at Gorham Academy, at Kent's Hill Academy and also at Colby University, where, however, he was compelled to leave, owing to limited means, before he had obtained his degree.

The Civil War breaking out about this time, he wanted to enlist in the service of his country, but his mother strenuously objecting he traveled out to San Francisco and worked in business with an elder brother in that city for five years. Having then, by close economy, saved a little money, he made his way home again and for a year studied in a business college in Portland, obtaining great skill as an expert accountant. Thus equipped, he served as clerk to Homer, Hilton and Tarbox on Commercial street in Portland for some months.

Indoor life, however, failed to agree with him, his lungs became affected, and finally, after pulling through two severe attacks of pleuritis by the careful skill of the late Dr. Samuel H. Tewksbury, of Portland, he made up his mind to go into the study of medicine, for which at various times in his life he had perceived a liking. With this in view, he studied privately with Dr. Seth Chase Gordon,

attended lectures at the Portland School for Medical Instruction, and finally obtained his degree at the Medical School of Maine in 1882. Having passed a high examination, he obtained the position of interne in the Maine General Hospital for a year. Immediately afterward he began practice at Westbrook, where he continued to the end.

His skill in insurance examination was rewarded at the end of a term of twenty years' service with a gold medal from the companies. He acted in the City of Westbrook as School Committee, City Treasurer, and once represented the city at the Legislature of 1893.

He was an engaging conversationalist, always ready to say something when you met him on the street. The only story that I find concerning him was that the late Dr. Smith, of Westbrook, asked Dr. Murch one day in his stable to look at some small growth on his neck. Dr. Murch said: "Come into the house and I will fix it," but Dr. Smith insisted that he could sit on the chopping block much more comfortably, and there and then a quick job of "chopping off" was done.

Dr. Murch married in early life Miss Emma M. Chadbourne, of Standish, and after her death he was devotedly taken care of for the rest of his life by his sister.

J. A. S.

DR. EZRA A. HOBBS.

FRAMINGHAM, MASS., PHYSICIAN, WAS A NATIVE OF BERWICK, ME.

Ezra A. Hobbs, oldest doctor in Framingham, Mass., died at his home there Saturday, March 25th. He suffered a paralytic shock a week before and had been unconscious for the greater part of the time since.

Dr. Hobbs was born in Berwick, Me., Dec. 29, 1845, and was graduated from Bowdoin Medical School in 1869, afterward going to Bellevue Hospital, New York City. He practiced in Boston, in New York City and Peabody. He went to Framingham in 1877.

When the law abolishing coroners was enacted in Massachusetts, Dr. Hobbs was among the first group of medical examiners to be chosen, with jurisdiction over the 8th Middlesex district. For thirty years he had been town physician.

He was an honorary member of Massachusetts Medical Society, Middlesex South District Medical Association, Paterson Lodge, I. O. O. F., of Paterson, N. J., Waushakum Encampment of Framingham and Garfield Council, Royal Arcanum.

He leaves a wife and one son, Gordon B. Hobbs, of Framingham, three brothers and two sisters, living in other states.

His funeral took place Tuesday afternoon, March 28, at 1 o'clock. The body was sent to Wells, Me., for burial.

BULLETIN NO. 4.

Dear Doctor:

You spent your money to secure a medical education; you offer the public your best service; you are honest in your work, sincere in your efforts, and faithful in your trust. The above being true, does it not seem reasonable that your friends, your neighbors, the community in which you live, should retain you when a physician's services are required?

NOW, apply this principle to the advertisers in this Journal. They want your business; they spend large sums in preparing to supply the things you need; and more money in bringing those goods to your notice. They make honest goods, and honest prices; and guarantee them as you guarantee to give your clients the best you can.

These advertisers are trying to "build up a practice" with you and other physicians in your state as their clients. Now, is it not fair to ask you to patronize the firms who advertise in your own state Journal?

Do as you would be done by; employ your own advertisers. Call them in when you need their services. Don't write or phone a stranger. Build your patronage on the same principle that you build your practice. *Patronize your own advertisers.*

"LOYALTY FIRST" is a good slogan when buying goods.

If you do not find advertised in these pages what you want, write us, or our advertising representative, **The Co-operative Medical Advertising Bureau, 535 N. Dearborn St., Chicago.** They will supply you all the information they can, and *absolutely* without any cost to you. *Co-operation is the life of our Association.*

YOUR EDITOR.

STATE PROGRAM.

"Eclampsia and Misfit Labor: Their Modern Management,"
S. P. WARREN.

"Surgical Treatment of Infections of the Uro-genital Tract,"
W. L. COUSINS.

"The Surgical Significance of Abdominal Contusions,"
F. H. JACKSON.

"Asthma in Children,"
F. P. WEBSTER.

"Scoliosis,"
E. G. ABBOTT.

"The Present Status of Medical Practice Legislation in Maine,"
A. P. LEIGHTON.

"Climate,"
W. R. ROWE.

"Ophthalmology in Relation to General Medicine,"
Prof. JOHN E. WEEKS,
Prof. of Ophthalmology in the University and
Bellevue Hospital Medical School, N. Y.

"Digitalis Therapy in Cardiac Disease,"
F. S. MEARA,
Prof. Therapeutics Cornell Medical School, N. Y.

"Our County Secretaries,"
J. A. SPALDING.

Banquet Address,
WALLACE BUTTRICK, of New York,
Director of the Rockefeller Foundation
China Medical Board.

Subject: "Experiences of a Layman on a Journey of Three
Months in Japan, Korea and China with Three Eminent
Medical Men." (Illustrated by lantern.) Ladies ex-
pected to attend.

JOURNAL OF MAINE MEDICAL ASSOCIATION

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Editorial Comment.

Another Rap at the Public Health Department..

The following joint resolution has been introduced by Senator John D. Works, of California:

Whereas, The American Medical Association is a national organization of physicians and surgeons of one school of medicine only and intended to advance the personal and private interests of its members; and

Whereas, One of the objects of said Association actively and aggressively prosecuted is to procure legislation, state and national, in the interest of the school of medicine represented by it and against all others; and

Whereas, The Public Health Service of the United States is intended to represent all classes of people of all medical or non-medical beliefs in national and interstate affairs; and

Whereas, The surgeon general of the Public Health Service has been elected president of the said Association and other officers of the Service have become members thereof; and

Whereas, It is believed that the best interests of the Public Health Service and of the people require that its officials and employees be free from influence or control by any school of medicine, or mode of healing; now, therefore,

Resolved, That it shall be unlawful for any officer or employee of the Public Health Service of the government to be or become a member or officer of, or in any way connected with, any medical or private health association or organization of any kind.

Dr. Rupert Blue, surgeon general, is president-elect of the American Medical Association. This is purely an effort on the part of the medical profession of this country to honor Dr. Blue and to show our appreciation of the great work which he has done.

The Senator who introduces this resolution has opposed all efforts to improve the condition of the Public Health Service, and is an ardent advocate of Christian Science. This latter fact does not react in any way so far as the medical profession is concerned, as we are accustomed to take a man at his true value, and judge him only by his individual acts, as a citizen in his community.

These resolutions not only require the surgeon general, but all surgeons in the Public Health Service, to terminate their membership in the various medical societies. Probably no one factor has worked to greater advantage to the country as a whole as the affiliation of the Public Health Service working jointly with the American Medical Association and other such organizations. Outside of our cities the public health matters are left in the hands of some local physician and the community is dependent upon him. If you will read these resolutions carefully, they seem to have an element of justice in them, and it forces one to realize that the present age or generation demands a more exact and businesslike relationship between the physician and the public rather than the ethical one which has always dominated this body of men.

It is no longer possible to go before a legislative body or city government and secure the passage of ordinances or acts aimed towards the betterment of public health on the merits of the case alone. It is time that the medical profession should give more thought to these matters and endeavor to see them in their true light.

It has been stated by an eminent legislator that the physician can be the most powerful factor in his community, and, should he so desire, could control more votes than any man outside of politics. Whether this be true or not, it would seem advisable to talk these matters over with the members of our Legislature and Congress, and endeavor to give them the true aims of the medical profession.

Daughters of Hygieia.

We commend to the members of the various county societies the idea embodied in the affiliated organization as represented by the Daughters of Hygieia of York County Medical Society. Doubtless some few of the physicians located in the smaller towns would very gladly attend their county medical meetings if it were not for the long distance to be traveled alone to the meeting place.

In this respect York County solved the problem, and not only invited the doctor to bring his genial companion, but also arranged a pleasing and profitable meeting, and they find it quite unnecessary to urge her to return to the next regular session. It is a well known

fact that when the doctor returns from a hard day, he would probably give up the idea of attending a meeting unless particularly urged, and it is safe to venture that when his wife is particularly anxious to attend the session that you will invariably find the doctor also present. A letter to the secretary of the York County Medical Society will receive prompt attention.

Book Reviews.

Thomson's Clinical Medicine.

By William Hanna Thomson, M. D., LL. D., formerly Professor of the Practice of Medicine and Diseases of the Nervous System, New York University Medical College. Octavo of 667 pages. Cloth, \$5.00 net.

To those interested in a clinically applicable treatise on medicine this book will be a welcome addition. Written by an able clinician of large experience, the subject is presented in such a way as to make delightful reading, at the same time hammering modern principles of practice by clear and logical argument into a form that is digestible and capable of assimilation.

The usual subjects are covered in a little more than six hundred pages of solid reading matter, printed in good type.

The chief charm of the work is the infusion of the personal element throughout the pages, which brings the reader into closer touch with the man who wrote the book and his methods.

So many works on medicine, with the evident desire to leave nothing unsaid, are frequently so indefinite as to leave the reader in doubt as to what one of the various measures presented the author himself would employ in a given case. Not so with Thomson's work. There need be no doubt as to just what he does under given conditions or just what theories he accepts or rejects.

The man who wishes something tangible to consider will receive it when he refers to a subject treated in this book, and for this reason the work will necessarily be a valued addition to the active library of the busy clinician.

H. E. M.

Clinical Hematology.

Clinical Hematology: An Introduction to the Clinical Study of the So-called Blood Diseases and of Allied Disorders. By Gordon R. Ward, M. D., Fellow of the Royal Society of Medicine, Medical Society of London, etc. Octavo of 394 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1914. Cloth, \$3.50.

This is not a work on laboratory technique. A single chapter places this subject before the reader briefly and simply. The book is

a monograph on diseases of the blood and blood-making organs. It contains an excellent classification of blood diseases; chapters on generalized and localized affections of the blood and blood-making organs; a very comprehensive discussion of chlorosis, the various types of anaemia, haemophilia, purpura, cholæmia, paroxysmal haemoglobinuria and other blood dyscrasias. Leucocytosis, lymphocytosis, leucopenia, polycythæmia and other cellular changes are gone into fully in respect to their clinical application. Hodgkins' disease, the various leukemias, Banti's disease, pernicious anaemia, and other disturbances of the blood-making organs receive excellent consideration.

Status lymphaticus or lymphatism is discussed with reference to its bearing on individual resistance, a chapter that may well be perused by those advising or performing operations on this class of patients, including minor as well as major procedures. Medical examiners will see in some cases of sudden death matters of medico-legal importance.

Treatment is gone into quite fully under each subject considered and the use of some of the newer agencies, as benzol, thorium X. and meso-thorium are referred to in their proper connection. Under treatment a special chapter is devoted to each of the important subjects of medical treatment of hemorrhage, transfusion, the use of the X-rays, the arsenical preparations and iron.

No man can read this book without having his knowledge of this important subject broadened, clarified and rendered clinically applicable and up-to-date.

H. E. M.

PEDIATRIC DEPARTMENT.

A development of the pediatric department of a university and medical school is discussed by W. P. LUCAS, San Francisco (*Journal A. M. A.*, April 8, 1916). At first limited to the field of infant feeding, it has developed into other fields, laboratory, hospital and social, and new and wider fields for investigation and teaching are being opened. Among the lines which can be cultivated as subjects for research work are the questions of mental defectiveness in children, and he points very clearly to a close relation between the medical field and the economic department of social economics. Workers in the latter line must be trained thoroughly from the medical standpoint. The department of education is another natural point of contact with pediatrics, as is also the department of physical culture, and the subjects of nutrition and dietetics. The larger community problems, such as those of infectious and contagious diseases to which children are the most liable, call for close co-operation of hospital and laboratory and all public and quasipublic institutions. A point of contact as yet not thoroughly considered, but which is of special importance, especially in a state university, is that with juvenile courts, state reformatories and homes for feeble-minded children, and this has been, as yet, taken up very little by the medical schools. A still wider application of the work can be carried out by connection with school boards, where the problem of the backward child or other educational problems arise. It is therefore incumbent to have medical schools offer fully as wide and practical a field for their students as possible. The physician today who goes out to practice without realizing the broader problems and fields of usefulness open to medicine is not only incompletely informed but is handicapped in the advance of his profession.

Abstracts from Current Literature.

Medical Review Club.

Subject, "Morbid Somnolence and its Relation to the Endocrine Glands."

By Chas. L. Dana, M. D., Medical Record, January 1, 1916.

After mentioning the more common conditions in which morbid somnolence occurs, the author discusses the cases which are not so easily explained. Four cases are reported as examples, two of which are the author's. In all of these morbid somnolence occurred as a prominent symptom, and the author thinks it was due to some disorder of the pituitary gland.

He therefore suggests that in all obscure cases we look for hypophyseal defects. Some of the symptoms to be looked for are the following: sella changes, adiposity, hyper or hypo trichosis, genital atrophy, impotence, amenorrhea, carbohydrate tolerance, endocrine blood changes characterized by an increased number of white blood cells, diminution in polynuclears, and a mononucleosis or increase in the number of lymphocytes, and the absence or presence of a large number of eosinophiles.

In addition, there are the symptoms of low blood pressure, slow pulse, and dryness or perhaps excessive wetness of the skin.

In conclusion, the author states that 15 to 20 per cent. of ordinary cases of morbid somnolence are due to a disturbed function of the pituitary gland.

The High Frequency Current in the Service of the General Practitioner.

By Louis Cohn, M. D., Medical Record, January 8, 1916.

In this paper the author gives the following uses, with case reports of the high frequency current. Cases of psychopathy, nervous conditions, vasomotor disturbances, hysterical strabismus, cases of pruritus, neuritis, Bell's paralysis, sexual weakness, sciatica ovarian neuralgia, colds, bronchitis and respiratory difficulties, asthma, all catarrhal conditions, as catarrh of gall bladder and appendix, inflammatory conditions, stiff joints.

It is extremely valuable in the following cases, diabetes, arteriosclerosis, enlarged prostates, boils, carbuncles and infected wounds, and inflammation of the lymphatic glands, hemorrhoids, warts, moles and other skin blemishes.

A Study of the Comparative Toxicity of the Various Preparations of Mercury.

By Jay Frank Schamberg, John A. Kolmer, G. W. Raiziss, from Journal Cutaneous Diseases, December, 1915.

Among other interesting facts, this paper presents tabulations of animal experimentation from which one should perceive the importance of careful consideration of the patient and frequent examination of the patient's urine, before and during mercury medication.

Some of the conclusions are as follows:—

"The toxicity of the various mercurial salts is directly proportionate to the amount of pure mercury contained. The inorganic salts, as represented by the bichloride, are no more toxic than the numerous organic combinations that are commonly employed.

"The average relationship as to the toxicity between the intravenous and intramuscular administration of mercury, in general, is about 4 to 1.

"The insoluble preparations such as grey oil, calomel and the salicylate of mercury are absorbed at the rate of a little over 1% of the injected amount per day.

"Even at the end of six weeks almost 50% of the mercury of the insoluble preparations may be unabsorbed at the site of injection. The injection of the usual doses of insoluble mercury compounds, at weekly intervals, must invariably lead to accumulation of the drug in the tissues.

"Mercury has a great affinity for the cells of the kidney, and this organ is one of the earliest involved in mercurial intoxication. Hence, during the intensive treatment with mercury, the necessity of careful examination of the urine from time to time should be emphasized."

B. B. F.

Lead Poisoning.

By Charles Spencer Williamson, Medical Clinics of Chicago, Vol. I, No. 3.

Two cases are presented to illustrate the toxic effects of lead. The majority of lead intoxications present some or all of the following symptoms: Anæmia, headache, anorexia, vomiting, constipation, weakness, lassitude, twinges of abdominal pain or definite attacks of abdominal colic. In about one case in two or three a lead line develops in the gum in the early stages. Such a line when typically present is pathognomonic, but its absence does not rule out a lead toxæmia. The importance of examining the gum with a lens is emphasized in order to distinguish a true lead line, in reality a series of dots in the gum, particularly in the part that projects downward between the teeth and the false line, due to other substances or lack of cleanliness, which is along the margin of the gum around the teeth.

In addition to the reduction of the number of red corpuscles there occur also changes in the form and staining reaction so that dots appear in the granules known as stippling. When blood is suspended in sodium chloride solution the hemolyzing properties are also changed.

Among the sources of lead poisoning, in addition to the classical examples of plumbers, painters and workers in white lead factory, we have to deal with a type much on the increase of late, namely, workers in wood, as men who sandpaper painted articles such as automobiles, where the lead paint is finely subdivided by the sandpaper into dust that is inhaled. Numerous cases of poisoning in various walks of life are cited and the statement made that it is oftenest the man who does not apparently work in lead that is frequently afflicted and in whom the diagnosis is most apt to be overlooked.

The effect of lead on the digestive tract is evidenced by a constipation that is apt to be difficult to overcome, followed by pains in the center below the navel, radiating over the abdomen, of a sharp, colicky nature, coming in attacks lasting from a few seconds to two or three weeks, accompanied by retracted abdomen with rigid wall and relieved to some extent by pressure.

The cardiovascular and visceral changes are often marked with increased tension and slowing of the pulse rate and a change in the middle coat of the arteries differing from arteriosclerosis, the vessels feeling like a partially inflated bicycle tire. The kidneys also show vascular and parenchymatous changes and the various lead palsies show the widespread pernicious effects of lead. In some cases the small amount of lead required to produce poisoning and the rapidity of effects is quite surprising.

In treatment prophylaxis leads in importance and a list of directions is incorporated in the paper such as may be presented to industrial workers who are exposed. As a test to determine if the hands are free, after being washed a solution of sodium sulphide is used, which will often show a black stain on the hands even when they are supposed to be perfectly clean. This is an important test and is easily applied.

Colic may require the use of morphine and atropin hypodermically with simultaneous attempts at opening the bowels completely, not a small task, sodium or magnesium sulphate being best. Enemas containing magnesium sulphate may be freely used. Iodide of potassium in small doses, five grains three times daily, as there is some danger of liberating the lead in the system too fast. Lead paralysis treated as peripheral neuritis. Alcohol avoided.

H. E. M.

Notices.

Philadelphia Academy of Surgery.
THE SAMUEL D. GROSS PRIZE.
Fifteen Hundred Dollars.

Essays will be received in competition for the prize until January 1st, 1920.

The conditions annexed by the testator are that the prize "shall be awarded every five years to the writer of the best original essay; not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens".

It is expressly stipulated that the competitor who receives the prize shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery, and that on the title page it shall be stated that to the essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery.

The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 S. 22nd St., Philadelphia", on or before January 1, 1920.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The Committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

WILLIAM J. TAYLOR, M. D.,
JOHN H. JOPSON, M. D.,
EDWARD B. HODGE, M. D.,

Trustees.

Philadelphia, March 1st, 1916.

County News and Notes.

HANCOCK.

HANCOCK COUNTY MEDICAL SOCIETY.

Report of the February Meeting.

Dr. C. C. Morrison entertained the Hancock County Medical Society at his home Wednesday, February 16th, at Bar Harbor.

"Practical Eugenics" was the subject of an interesting paper by Dr. H. B. Webster, of Castine. The paper was well discussed by all.

The cheerful open fire, fragrant cigars and delicious lunch furnished by the host, Dr. C. C. Morrison, made the social hour exceedingly pleasant.

Members present, Drs. C. C. Morrison, E. J. Morrison, J. H. Patten, R. G. Higgins and Geo. A. Phillips, of Bar Harbor, Dr. H. B. Webster, of Castine, and Dr. G. A. Neal, of Southwest Harbor. Guests, Dr. Ernest Hart, of England, Rev. Mr. Lodie, Rev. Mr. Larned and Mr. Mark Morrison, of Bar Harbor.

G. A. NEAL,
Secretary.

PENOBCOT.

PENOBCOT COUNTY MEDICAL ASSOCIATION.

The regular monthly meeting of the Penobscot County Medical Association was called to order by the President, Dr. E. B. Sanger, at 8.00 o'clock, at the Bangor House.

The reading of the minutes of the previous meeting was omitted.

Drs. James D. Clement, of Orono, and William E. Emery, of Bangor, were elected members.

After supper, we had the pleasure of listening to a very excellent paper by Dr. Frederick T. Lord, of Boston, whose subject was "Pulmonary and Pleural Diseases". Dr. Lord's paper was particularly concise and clear cut, yet covering many features peculiar to these two conditions. A brief discussion followed.

Those present were:

Dr. F. T. Lord, Boston, Mass.	Dr. C. H. Burgess, Bangor.
Dr. E. B. Sanger, Bangor.	Dr. L. S. Mason, Bangor.
Dr. H. F. Quinn, Bangor.	Dr. Wm. P. McNally, Bangor.
Dr. C. R. O'Brien, Bangor.	Dr. A. K. P. Smith, Bangor.
Dr. B. L. Bryant, Bangor.	Dr. Hunter, Vanceboro.
Dr. E. E. Brown, Bangor.	Dr. S. N. Marsh, West Enfield.
Dr. C. S. Philbrick, Bangor.	Dr. L. S. Norris, Bangor.
Dr. W. E. Fellows, Bangor.	Dr. R. N. Knowles, Bangor.
Dr. H. T. Clough, Bangor.	Dr. Daniel McCann, Bangor.
Dr. Wm. C. Mason, Bangor.	Dr. G. E. Landry, Old Town.
Dr. Lester Adams, Bangor.	Dr. W. L. Hunt, Bangor.
Dr. C. L. Scamman, E. Millinockett.	Dr. D. A. Robinson, Bangor.
Dr. H. M. Chapman, Bangor.	Dr. R. A. Thornley, Bangor.
Dr. C. M. Thomas, Brewer.	Dr. J. J. Sewall, Newport.
Dr. J. B. Thompson, Bangor.	Dr. G. I. Higgins, Plymouth.
Dr. J. P. Russell, South Brewer.	Dr. A. W. Rowe, Old Town.
Dr. J. A. Starrett, Bangor.	Dr. H. J. Milliken, Bangor.

YORK.

YORK COUNTY MEDICAL SOCIETY.

The eighty-fourth quarterly meeting of the York County Medical Society was held in the Town Hall, South Berwick, Thursday, April 6th, from 10.30 A. M. to 3.00 P. M. Dr. H. L. Prescott, of Kennebunkport, President of the Society, was in the chair. Dr. John C. Stewart, of York Village, was elected to membership. After the business session, dinner was served from 12.30 to 1.30 o'clock.

Dr. John F. Thompson, of Portland, Professor of Gynecology in Bowdoin Medical School, presented a paper on "Carcinoma". This address had been prepared most carefully and was especially instructive.

Dr. Frank A. Whittier, of Brunswick, Professor of Pathology and Bacteriology in Bowdoin Medical School, and councilor for the first district of the Maine Medical Association, was also one of our guests. It was a real pleasure to have Dr. Whittier with us on this occasion, and his remarks, although limited to a few minutes, were enjoyed greatly.

A vote of thanks was extended to Drs. Thompson, Whittier, and C. E. Cook, of South Berwick.

Those present: Drs. J. F. Thompson, Portland; F. N. Whittier, Brunswick; H. L. Prescott, Kennebunkport; E. D. Jaques, F. A. Ross, C. E. Cook, South Berwick; J. W. Gordon, Ogunquit; J. C. Stewart, F. W. Smith, E. C. Cook, York Village; C. F. Traynor, C. F. Kendall, Biddeford; H. I. Durgin, South Eliot; L. L. Powell,

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Saco; G. W. Nutter, Salmon Falls, N. H.; F. A. Davis, Bay City, Texas; J. A. Randall, A. L. Jones, Old Orchard; Messrs. E. H. Reeder, Saco; F. L. Bulfinch, M. A. Fruh, Portland. Total, 21.

ARTHUR L. JONES, *Secretary.*

YORK COUNTY DAUGHTERS OF HYGIEIA.

The tenth quarterly meeting of the York County Daughters of Hygieia was held Thursday, April 6th, at the home of Mrs. Charles E. Cook, South Berwick. This was an especially interesting meeting in many ways. After greetings were exchanged, the hostess served light refreshments. The founder and new President of the Society, Mrs. Carrie R. Dolloff, presided at the business meeting. The President appointed the following committees for the ensuing year:

Lookout Committee, Mrs. A. C. Maynard, Biddeford. Membership Committee, Mrs. R. S. Gove, Sanford. Sick Committee, Vice-President Mrs. W. W. Smith, Ogunquit; Mrs. A. S. Davis, Springvale; Mrs. C. E. Cook, South Berwick; Mrs. W. W. Varrell, York. Entertainment Committee, Mrs. F. C. Lord, Kennebunk. Press Committee, Mrs. L. H. Brown, North Berwick; Mrs. A. L. Jones, Old Orchard.

Edwin H. Reeder, acting agent of the Children Aid Society of York County, also superintendent of the Sweetser Orphan Asylum, Saco, gave a very interesting and eye-opening address on some of the conditions in York County. His subject was "What Instruction in Hygiene Is Needed in the Homes of York County".

After dinner the ladies made a most enjoyable trip through the Jewett House. This unexpected opportunity to visit the home of Sarah Orne Jewett, author of "The Country Doctor", was greatly appreciated by all.

Those present were:

Mrs. C. E. Cook, South Berwick.	Mrs. H. I. Durgin, South Eliot.
Mrs. E. C. Cook, York.	Mrs. W. W. Smith, Ogunquit.
Mrs. D. E. Dolloff, Biddeford.	Mrs. G. W. Nutter, Salmon Falls.
Mrs. H. L. Prescott, Kennebunkport.	Mrs. C. F. Kendall, Biddeford.
Mrs. J. L. M. Willis, Eliot.	Mrs. A. L. Jones, Old Orchard.

PERSONAL NEWS AND NOTES.

Dr. Leopold A. Girard, of Biddeford, was elected mayor of that city on the Democratic ticket, Monday, March 13th.

Dr. Geo. C. Precourt, Bowdoin Medical, '08, was re-elected city physician of Biddeford last month.

Dr. Jos. W. Gordon, of Ogunquit, will be one of the candidates for the Republican nomination for state senator in the June primaries.

Dr. Philip S. Sullivan, Bowdoin Medical, '13, who has been located in Sanford during the past three years, has discontinued his residence in that town, having decided to locate elsewhere. Dr. Sullivan is a native of Biddeford.

Dr. Paul S. Hill, of Biddeford, has been appointed a member of the State Board of Health by Gov. O. C. Curtis. Dr. Hill graduated at Bowdoin College in 1901, with the degree of A. B., and received the degree of M. D. at George Washington University in 1906.

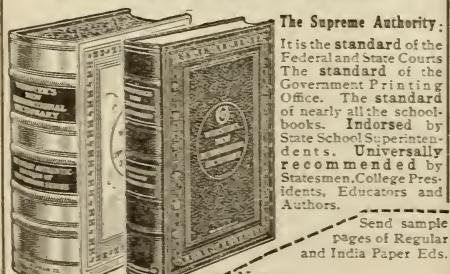
"A copy should be in the possession of every up-to-date physician," declares Walter P. Bowers, M.D., President Massachusetts Medical Society.

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Such products are all the more a menace in that the poisonous solutions are sweetened, making the dangerous potion enticing to children.

In the past physicians have denounced the poisonous phosphorous match, and this public danger has been eliminated. The baneful arsenical fly draughts merit like condemnation.

Michigan has passed a law specifically to regulate the sale of poisonous fly eradicators, and other states will undoubtedly follow. Because of its interest in public welfare, the medical profession supports this movement and favors the stringent restriction of the manufacture and sale of these noxious products.

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VOL. VI.

MAY, 1916.

No. 10

*THE TREATMENT OF NEPHRITIS.

BY NELLIS B. FOSTER, M. D.

Assistant Professor of Medicine, Cornell Medical College, New York City.

The therapeutics of renal disease derives very little help from causal factors since the etiology of nephritis is mostly obscure. With only a minority of the cases can etiological factors be traced; in some instances this may lead to very excellent results. It occasionally happens that patients with syphilis give little or no evidence of the disease other than nephritis. Recognized as this fact is, it nevertheless is often forgotten. It is not a bad rule to make in practice to investigate every patient with nephritis for signs of lues. Syphilitic nephritis responds well, in my experience, to treatment, and I have seen some brilliant recoveries.

A second source of infection that is at present receiving a due amount of attention relates to the tonsils. Chronic infection in the tonsils, as chronic infection elsewhere in the body, may be related to renal disease. Acute nephritis, as we know, is not a very rare sequel of follicular tonsillitis. With two cases that I now recall a marked albuminuria, associated with other symptoms and signs of renal disorder, cleared up completely after the removal of badly diseased tonsils.

These two infections do not complete the list of those related to nephritis, but they are the ones of which we can take advantage therapeutically to a degree not true with nephritis secondary to pneumonia or the acute exanthemata.

*An address before the Knox County Medical Society at Rockland, Maine, August, 1915.

A second division in respect to etiology is made by the metallic poisons, lead, mercury, etc.; and here too often much damage is done before the man is seen by his physician. This field properly belongs to preventive medicine, and in many states the Boards of Health are endeavoring to safeguard the workers in trades where poisons of this class are used.

It is of interest that a calculus in one kidney appears to be in some manner connected with degenerative changes in the other kidney. Perhaps that is well to remember in counties such as this, where renal calculi might be expected to be rather common.

In the vast majority of cases one is unable to assign any cause for the development of renal disease. I have been much interested in a familial tendency which has come to my attention rather frequently, but that is probably exceptional, and the other factors are as obscure as the specific meaning of the commonly blamed "mode of life". Incidentally, and of no interest, of course, in a "temperance state", is the fact that alcohol seems not to induce nephritis, at least so the pathologists to alcoholic wards in the city hospitals attest.

Until rather recently the study of a case of renal disease resolved itself into an endeavor to arrive at an anatomical diagnosis: Was the case one of some half dozen different types of kidney disease described by the morbid anatomist? That phase represented a necessary step in the development of our knowledge. But an anatomic diagnosis in renal disease is a very poor aid to rational therapeutics. So at present we are concerned much more with physiology than anatomy, more with function than structure; and this must be so in clinical medicine, since the microscope is unable to disclose to us in what degree a cell or tissue is inadequate to demands. It is not rarely that one sees at autopsy, where death was not due to nephritis, kidneys so damaged and atrophied that it seems impossible that they could have supported life. Evidently enough renal substance still remained intact to meet the demands. From this it must be clear that what the clinician needs to know is, in what respect and in what degree is the *kidney function* below normal.

Now since the estimation of renal function is in many instances a purely diagnostic procedure, I wish to digress for a moment and discuss some of the methods employed in the detection of nephritis. There are not a few instances, and some with severe nephritis, where a diagnosis can not be made without considerable study. This is so because the urine may be practically normal. On the other hand, albuminuria without supporting evidence does not demonstrate clinical nephritis. There are, as you know, a considerable number of con-

ditions, some serious, some of minor importance, which can give rise to albuminuria without apparently damaging the renal filter. The persistence of granular casts and of leukocytes are on this account more significant to me than albumen. Even these are missed in many specimens from diseased kidneys. In brief, one must always have supporting evidence for the urine analysis; in one class of cases this evidence may be oedema, in another cardiac hypertrophy, retinal changes and an increased blood pressure. These facts justify a diagnosis of nephritis. Now becoming a little more refined in our methods, we can recognize nephritis in earlier stages before these clinical manifestations are so pronounced. We occasionally see cases with a little oedema of the lower extremities; the heart mechanism is beyond suspicion, and we find that these individuals eliminate salt poorly. If excessive salt be given as a test the oedema increases, palpably and by weight; if the salt consumption be reduced to the lowest possible amount the oedema vanishes. In brief, the renal function is disturbed with respect to salt excretion. In my opinion gout represents the same sort of disturbance; the kidney fails to excrete uric acid. These cases may, and often do, have a perfectly normal urine. In the hospitals we investigate these cases to an exhaustive degree, but essential facts can be secured with considerable ease. An estimation of the sodium chloride excretion in the urine for a twenty-four hour period and the simple phenol-sulphone-phthalein test tell you much and point the way for therapeutic measures.

Having decided there is a nephritis, one learns at the same time its functional type; and we classify these types under three divisions:

1. Nephritis with salt retention.
2. Nephritis with nitrogen retention.
3. Mixed—comprising both of the above.

There is in this classification no reference to anatomic changes in the kidney structure, since, as I have explained, it is not anatomy that concerns us so much as physiology. We can, however, translate our terms into anatomic pictures if we so please. The pure type of salt retention nephritis, that is, the type where oedema is the conspicuous sign, is associated with diffuse nephritis, the large white kidney in adults, and post-scarlatinal, glomerulo-nephritis typically. On the other hand, the typical anatomical picture concomitant with nitrogen retention is the small granular kidney.

In treatment we apply principles that are in general use throughout medicine, if an organ is defective we lighten its burden. With decompensated cardiac disease rest in bed is necessary until compensation is restored. After that directions are given so as to insure that

the demands made on the heart are not greater than the power of the myocardium can endure. So in nephritis either chlorid, nitrogen, or both, are excreted poorly. It is rational, then, to limit the ingestion of these substances, nitrogen and salt, sufficiently so as to come within the renal power of excretion. We might call this protective treatment. Applying these principles to nephritis with oedema, we meet these conditions: Where sodium chlorid fails of excretion and accumulates in the tissues there is also enough water retained to preserve isotonic solution. Oedema fluid or effusions into cavities is essentially isotonic salt solution. Our hypothesis is that the water is retained because salt is retained. Consequently we limit the amount of salt taken in the food. It is possible to reduce the salt ingest to about three grams per day if the diet be selected and no salt be added in the preparation of the food. Unsalted bread, sweet butter, potato, milk, fruit and sugar can be arranged to meet the needs for adequate nourishment and still keep the salt content to the desired low amount. It is not well in the beginning to reduce the amount of fluids. A few cases respond very promptly to reduction of salt intake by diuresis; a subsidence of oedema and gradually thereafter the albuminuria vanishes. With the majority, when recovery takes place it is more gradual and less dramatic. With general anasarca the only guide we have from day to day as to the increase or decrease of oedema is the weight. When the volume of urine persists low and the weight curve indicates increasing oedema it is advisable to restrict the amount of water the patient drinks. But when this is done there should be interpolated at least one day a week when there is a large fluid ingest. It not infrequently happens that this method will secure on the "drink day" an adequate response in the volume of urine passed. Again, as soon as the volume of urine rises and salt begins to be secreted the amount of water taken should be increased so that there is, in effect, a flushing out of accumulated substances.

This type of nephritis with oedema is prone to be a protracted and dreary disease, even with cases that eventually recover. I have not been much impressed with the results achieved by various procedures directed toward stimulating renal activity. Diuretics in my hands have proved of little use, and it seems to me that they are quite as likely to do harm as good. With hot packs, exceptionally one notes a beneficial effect, but this effect is not due to water lost by sweating but to a diuretic response to the heat. Now and then hot compresses over the kidneys will induce diuresis. It is often very difficult to judge of the value of therapeutic measures with this disorder because the condition may so suddenly change without apparent cause and the patient go smoothly on to convalescence. If this happens during a

period when some pet remedy is being used, of course the remedy is given the credit. I wonder if the decapsulations that have met with success were not fortunate in time rather than anything else. At least I have seen more cases die after decapsulation than have recovered.

The second group of cases of nephritis is by far the more common. In fact, chronic nephritis of the nitrogen retention type is one of the common diseases and ranks high in mortality statistics. This disorder is at the bottom of many other diseases, myocardial degeneration, arterial degeneration, hemiplegia and chronic bronchitis, and these symptoms in persons over forty should put us on our guard.

In the first place I must explain, perhaps, just what is meant by nitrogen retention. The characteristic element in protein food is nitrogen and the specific need of protein is to replace worn-out tissue cells. In health there is, with adults, an equilibrium between the nitrogen ingested as food and the nitrogen excreted in urine and feces. During youth, when there is a constant increase in the muscle and tissue bulk of the body, nitrogen is retained for this tissue building and the amount excreted is less than the ingest. The same conditions are found during convalescence after acute diseases such as typhoid. But with the exception of these two conditions where nitrogen is held back in the body as a component of new tissue, the outgo in health constantly tends to equal the intake. Nephritis is demarcated by a retention; the output at periods is less than the intake and this is so because the kidney fails in its excretory function. This is evidenced by an increase in the percentage of urea and other urinary components in the blood. It is also demonstrable in carefully conducted experiments when the food is all weighed and analyzed and the excreta collected and the nitrogen estimated. Nitrogen may be retained at the rate of a gram a day frequently, two grams per day not exceptionally with very sick nephritics. Now certain clinical evidences go hand in hand with nitrogen retention. Whether they are an effect of the excess of waste products in the body is not known. Among the most general of these manifestations is an increase in the arterial blood pressure along with which goes hypertrophy of the ventricle. A second sign is haemorrhages, common in the retinae but occasionally noted elsewhere, as, for example, into the intestine or stomach. Patients with chronic nephritis of this type, nitrogen retention, or azotemia, provided they escape some infection, such as pneumonia, succumb to one of three sequelæ of the disease: (1) If the arteries are too defective to endure the increased pressure there is haemorrhage, often in the brain; (2) if the heart be not equal to the increased work of the high arterial pressure there is cardiac dilata-

tion and failure; (3) when these dangers are passed uræmia claims the final scene.

Turning now to the treatment of this type of renal disease we are confronted with a number of varied pictures, and because the pictures are superficially unlike, the physician too often fails to recognize that he deals with the different manifestations of a single disease. Exhibitions of circulatory embarrassment, which are spoken of usually as myocardial degeneration, are very often an evidence of renal disease, where the high blood pressure is an intermediate factor. Here we must not forget that the function of the kidney is dependant not only upon its secreting cells but upon the volume of blood that passes through it. Now when the heart weakens the diseased kidney works even less well than before. So it is that with these cases where cardiac symptoms cloud all else, we have to do with a vicious circle, renal disease, from that cardiac muscle degeneration and labored circulation which leads again to impaired renal function and defective excretion. These cases show all gradations of symptoms, from dyspnoea on exertion to frank œdema and effusions into the cavities. Examinations disclose a large dilated heart with a systolic mitral murmur and this may be all. The blood pressure may deceive you into thinking not at all of chronic nephritis, since it is often low because the heart has not the muscle power to keep the pressure high. These cases require digitalis and do well with it; irregularities in cardiac action disappear or improve markedly and the symptoms are relieved. With marked œdema, bed rest for a period is necessary along with digitalis and often a very scanty diet and brisk purgation with salines is of assistance. It is remarkable to note the return of the blood pressure to a considerable increase above normal as the heart muscle regains its tone. And do not be afraid of digitalis; use amounts that are necessary to secure physiological response, either in slowing the pulse down to 65 or return to regular rhythm. It may require a drachm and a half of the tincture daily for a few days, after which small doses will hold the cardiac mechanism steady.

But I must return to the therapy of nephritis with nitrogen retention. The urine in classical cases, as you know, is of low specific gravity; it is also low in nitrogen concentration. Whereas, with normal persons the kidney is able to secrete urine containing two per cent. of nitrogen with ease, with this disease typically the concentration may not be over 0.5 per cent. of nitrogen. As we say, the renal filter is thick. Now what does this mean. An average normal person puts out daily about 1200 c.c. of urine, containing some 1.5 per cent. of nitrogen or 18 grams. A nephritic who may be eating the same amount of nitrogenous food can not secrete a urine containing over .6

per cent. of nitrogen. It is evident then that he must put out 3000 c. c. of urine daily if he is to become rid of all his nitrogen waste.

$$1200 \text{ c.c.} \times 1.5 = 18 \text{ g.}$$

$$3000 \text{ c.c.} \times 0.6 = 18 \text{ g.}$$

It is obvious that the polyuria of nephritis is a physiological adjustment and we do well to heed it. There are two hints in this that I have found of use; first, cut down the protein food to a small amount so that the nitrogenous waste will be small; second, give large amounts of water to drink, thereby relieving the kidneys of the burden of concentration and thereby avoiding the damming back of urinary products in the blood and tissues.

The low protein diet we use consists of one pint of milk, four small slices of bread, butter, potato and green vegetables. This diet contains about seven grams of nitrogen (45 grams protein) and is adequate for moderate needs. With very sick patients it is too much and must be reduced. Do not fall into the common error of imagining that the substitution of milk for meat of necessity reduces the protein intake. An exclusive milk diet usually amounts to some eight glasses of milk a day or more and represents about eighty grams of protein and twelve grams of nitrogen. Use milk only for nitrogen, and add cereals, sugar and fat to make up the fuel value required.

Now having made up a diet that is not overloading the damaged kidneys with a surfeit of nitrogen waste, we proceed further to aid in the elimination of these products. The best aid is diuresis and the best diuretic is water. But there are limitations and one must know what one is doing. Not every nephritic excretes water easily, and it is necessary to test each patient by giving a liberal amount of water, say two quarts, during a day and measuring the urine voided during the same period. Lemonade is often taken more readily than water. If there be a free water elimination then the copious ingest should be continued. The diuresis as well as the amount of fluid absorbed is often increased by employing hot colon irrigations once daily. Not many nurses know how to give a colon irrigation. If you can secure diuresis your patient will improve, often with an astonishing rapidity; but the low nitrogen diet must be continued.

Now when there is not a good response to a large fluid ingest, one can allow time for recovery by giving the large amounts of water every second day. A little oedema is no good reason for stopping, since, in my opinion, the most dangerous condition that can befall this type of nephritic is becoming dessicated.—Dessication means concentration of noxious substances within the body. Oedema, by contrast, is a harmless complication. Again, with some of these cases

where there is inadequate diuresis to water ingest the fault lies in a weak heart, and these cases show rather quickly some oedema of the legs or back. Here digitalis alters the whole picture. Along with digitalis in adequate doses the water can be given and is excreted and the oedema vanishes.

As to diuretics of the renal type such as diuretin, I have little to say other than that I have not observed good results from their use and I do not use them.

The third clinical type of nephritis is due to a mixture of the two types just described. There is oedema and even anasarca, and also cardiac hypertrophy, high blood pressure and probably retinal hemorrhages. Proper tests disclose that there is both salt retention and nitrogen retention. These cases are rather more difficult to manage because one cannot carry out our principles in all respects without modification. Since there is salt retention, restriction of salt intake is requisite, and also of nitrogen because there is faulty nitrogen excretion. The dietetic indication is clear. But with much oedema there is, of course, poor water excretion and large amounts of water cannot be ingested daily. Here we must use "drink days" once or twice a week and more often as the urine increases. It is advisable to try digitalis on all these cases, since there is now and then a cardiac factor in the oedema which cannot be suspected until one determines whether digitalis influences it.

In the brief time at our disposal, it is not possible to do more than outline the principles which underlie the modern treatment of renal disease. I wish especially to leave with you a clear-cut idea that intelligent therapeutics in this field demands of us not merely an anatomical diagnosis, but a functional, a physiological diagnosis; and that only in this way can we learn how to lighten the burden on any diseased organ and how to facilitate its specific work.

Camden, Maine.

TYPHOID FROM OYSTERS.

P. B. Brooks, Norwich, N. Y. (*Journal A. M. A.*, May 6, 1916), reports an outbreak of typhoid fever, comprising fifty cases, which occurred last November and December in Binghamton, N. Y., and some outlying towns, which is of interest since the cause could be traced to oysters as the origin of the infection. There was no other common cause. All the cases occurred in those partaking of the oysters supplied from two out of six wholesale dealers. In one case it could not be exactly traced. The two wholesalers out of the six received their supply from three Maryland packing houses, each of which obtained its stock from a large number of scattered shuckers. No cases other than secondary ones have occurred since the exhaustion of the supply of infected oysters which were received in two shipments in November and December.

***THE AMERICAN RED CROSS HOSPITAL,
COSEL, GERMANY.**

By B. F. BRADBURY, M. D., Norway, Maine.

Mr. President and Gentlemen:

I have decided to simply tell you a little of what occurs in an army hospital, particularly the one that is conducted by the American Red Cross at Cösel, the town where I was stationed in Germany. It was originally a medical hospital, but the medical cases had been cleaned out and surgical cases taken from the front, especially for our use, I suspect, as the hospital staff who were there, some twelve or fourteen in number, were entirely medical. As those gentlemen of you present who have been in that country know, you are either a practitioner of medicine or a surgeon; and this having been originally a medical hospital, the medical men remained, and there was no one to do surgical work excepting the members of the American Red Cross of our unit. The hospital was made up of about twelve buildings, halls, schoolhouse, etc., each of them being a small hospital, all under the head of one man, the chief surgeon, who was a very competent man, and a thorough German. We were given the garrison lazaret, that is, the original hospital that belonged to the garrison, which was well fitted in every possible way for our use. It had a fine X-ray outfit, a nice operating room, and all the instruments necessary. We went to work on a Sunday morning. Late in the evening we were told there was a hospital train coming. We received that night somewhere about seven hundred wounded men from the field. A part were from a recent battle, but most of them were taken from hospitals at the front, what in this country we would call field hospitals. We had assigned to our building the most serious cases for the reason that we had twelve experienced nurses with us, the other hospitals having but one, who was called a Gray Sister—a nun—but they are very efficient workers.

Now to give you a little idea of what we are doing, I have taken up and classified one hundred consecutive surgical cases in the month of November, cases where it was necessary to use general anesthesia. Opening of abscesses or similar minor operations are not mentioned, and we have no record of them because there was a great deal of that work, and those simple things were done by all the surgeons present. Among the one hundred cases are four penetrating wounds of the

*Stenographic notes of a talk before the Poland Springs meeting of the Maine Medical Association.

skull. Of that four only one survived. They were all infected when they reached us and all unconscious. This one man was still living when I came away. Of the face, two; also two of the face that involved the eye, being the right eye in both cases. The eye had been removed in one case, and in the other the eye was removed later. Eight chest wounds; four abdominal; of the shoulder, two; arm, three; elbow, one; forearm, one; hand, one (that is, shot through the palm of the hand); three of the hand and fingers, where fingers had to be removed; through the pelvis, two; of the hip-joint, four; of the thigh, nineteen; of the knee, three, of the leg, twenty-seven; of the ankle, two; foot, five; spine, three; and one appendicitis case. What I wish to call your attention to is the fact of the extreme number of lower-extremity wounds. Of the body (back, chest and abdomen) there were but fifteen cases; of the upper extremities, eleven; of the lower, sixty. It seems almost incredible that out of that number there should be so many wounds of the lower extremities; but such is the fact. During that time we had, of those cases I have just mentioned, one amputation of the shoulder, one of the arm, one of the elbow, three of hand and fingers, four of the leg, nine of the thigh, and re-amputation of the thigh, three. These latter arrived the very last of November direct from a field hospital. They had been operated upon some ten days before. The stitches had torn out. The wounds were full of pus and the bone was protruding. They were operated upon the next morning.

I think it might interest you to cite some particular cases. There was one especially that gave us a great deal of trouble, though it seemed a simple wound. The wound was directly transverse across the chest, seemingly but little more than skin deep. We cleaned it out and supposed that was all that was necessary. Two days later there was pus and we found a pocket. The patient was given ether again, and we explored the wound thoroughly, believing that we had it entirely under control. A few days later a large amount of pus came from the lower edge of the wound on coughing; and on further exploration we found a fractured rib down in about this region (indicating) at a distance from the wound. Evidently in some way that bullet had gone downward and punctured the rib. We removed the bullet, which was found loose in the plural cavity, and the man eventually got well.

I will tell you of a case, not in this series that I have given you, but a man who came into the hospital just a few days before I left. He was shot three days before over the left eye. The exit, or the "outshoot" as it is called, was in the back of the head. I saw the man walking about as he came into the hospital, and asked him the

trouble. He said "in shoot", and then he said "out shoot", pointing to his wounds. He had on a first-aid dressing, just as he came from the field. I lifted that up very carefully, and I found the place where the bullet had gone through, and also in the back where the bullet unquestionably came out; it did not go around the skull. That man was not even knocked down, so we learned. He said that he had had a headache for twenty-four hours. This man had walked a mile and a half to our hospital.

We had a great deal of trouble with secondary hemorrhage. About the eighth to the twelfth day after a man was shot we were very apt to have hemorrhage from the wound, and often it is very severe. The velocity of this new bullet is great, and, being sharp, the steel-jacketed bullet will not push an artery to one side, but will often just clip it. That does not bleed at the time, but after eight to twelve days we get a slough, and immediately a tremendous hemorrhage, because, as you see, the vessel has no possible chance of contracting. I remember distinctly of one man whom we had operated on twice for secondary hemorrhage following a deep gunshot wound in the pelvis, just above the hip-joint. We were again called that night because of recurrence of the bleeding. From the condition of the man we did not dare to go into the cavity, and all we could do was to apply a pair of long artery forceps deep in the wound. He was delirious at the time. Two mornings after that I was early at the hospital, and the nurse said, "Come in as quick as possible". I did so, and found that he had pulled off his artery forceps and was holding them in his hand. He had no more hemorrhage, and the man got well.

I wish to speak of the extreme amount of pus. Everything was absolutely full of pus. Those three cases that I have spoken of, where we had to perform a secondary amputation of the thigh, were actually reeking with pus. On lifting the leg up, a thin, greenish pus would flow out; and with all that there would be comparatively little rise of temperature and but very little delirium. I do not remember but three or four cases in that whole hospital where there was marked delirium. The men showed extreme strength in that respect. They never complained, and that is also true of the Russians. At our hospital there were seventy or eighty Russians wounded, and they were given the same treatment; the only difference was a guard at the door.

I will say to those who may be interested that I have my German Red Cross pass with me and also a German helmet; the helmet was given me by a private soldier in the hospital. Everywhere in Germany we received the most courteous treatment and care. Everything was done for our comfort, both by the military and civic authorities.

BULLETIN NO. 5

*How can this Journal
be of greater service to
you?*

Dear Doctor:

Our Service Bureau is proving to be a help to our readers. This Bureau is equipped with catalogues and price lists of manufacturers and has at its finger ends general information so it can tell you where you can get guinea pigs or automobiles, special brands of foods, the location of hospitals, and sanitariums for special treatment; or where particular makes of instruments can be obtained, etc., etc.

Here are some of the inquiries the Bureau has answered.

Feb. 11, 1916, PHOENIX, ARIZ.: Tell me where I can get an Electrocardiograph.

Feb. 24, 1916, JOINER, ARK.: Who publishes Ramon Guiteras' book on "G. U.?"

Jan. 14, 1916, ROCKPORT, MAINE: Advise me about an institution for cure of the drug habit.

Feb. 8, 1916, BOWIE, TEXAS: I want a firm that publishes a book for plans for sanitaria.

Jan. 31, 1916, PUNXSUTAWNEY, PA.: Where can I secure an electric lighting apparatus, such as is used by ear, eye and nose specialists?

Jan. 26, 1916, HUNTINGTON, IND.: Advise me where I can get an electric instrument sterilizer, and its cost.

Jan. 26, 1916, MINERAL WELLS, TEXAS: Give me name and address of firm handling second-hand Sinusoidal electric machine.

March 3, 1916, SAFETY HARBOR, FLA.: Please advise of reliable physician's supply house where I can obtain micro. stains, and other accessories.

March 27, 1916, WATROUS, N. M.: Where can I get history card with diagram of thorax, suitable for use in tuberculosis sanitarium?

March 13, 1916, ATWOOD, OKLA.: Kindly write me the names of some reliable dental schools.

March 10, 1916, SPENCER, N. Y.: Give me the name and address of some company that manufactures candy medication.

March 16, 1916, MINNEAPOLIS, MINN.: Is there a card index system for keeping history of cases and of financial accounts?

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Editorial Comment.***Penetrating Wounds of the Abdomen.***

Any surgeon interested in the topic here mentioned will find most valuable instruction by referring to a paper by Fraser and Bates in the British Medical for April 8, 1916. Sixty-two cases of all sorts are here reported, analyzed and illustrated. Thus, for instance, of injuries of the stomach and intestines there were twenty-one, of which twelve died and seven recovered after operation and two without operation. Of twelve colon perforations, five recovered and six died and one was lost trace of. Of the fourteen cases of injury to the liver, gall bladder and duct, all recovered, eight being unoperated upon.

Operation is indicated in all penetrating wounds of this sort. Wait till collapse has been recovered from after fatigue of removal to the hospital, except in hemorrhage, when get to work at once. All stimulants are omitted except 1 c.c. of pituitary extract. Minimize shock during the operation and use subcutaneous salines. Spinal anaesthesia has been occasionally used, but generally closed ether anaesthesia is relied upon.

Speed is important, the prognosis is subject to the injury and loss of blood, but in spite of bitter disappointment occasionally, the chances are favorable, early operation offering the best chances.

This is a very remarkable paper, well worth study. Special attention may be called to a case of four feet of gut containing numerous perforations from machine gun bullets removed successfully, and to sketches of two interesting instances of injury to the spleen. Students of military surgery will find the reading of this paper well worth the time involved.

J. A. S.

Our June Meeting.

The 1916 session of the Maine Medical Association is fully up to the standard of all preceding meetings and will have a great deal to offer to the members who see fit to choose this time for their vacation, or who will drag themselves from their busy practice for the two days' session.

The Program Committee has offered us a strong and variable program, and we feel that the various authors need no special mention. The Cumberland County Entertainment Committee has seen long service and are utilizing their past experiences to a good advantage.

We have assurances that the Portland Club, Portland Athletic Club and others will cordially welcome all members of the Maine Medical Association to take advantage of their club rooms, during their two days' stay, and enjoy all the privileges accorded the members. Heretofore, the registration badges have been sufficient for recognition.

The entertainment for the ladies will be carried out as usual, and we unhesitatingly predict a pleasant and valuable trip to all who attend the next session of the Maine Medical Association.

Plattsburg and Preparedness.

At the last meeting of the Cumberland County Medical Society, it was a part of my duty as President to call the attention of the members present to the very cordial and very urgent invitation extended by Major General Leonard Wood, U. S. A., to members of the medical profession to take a share in the camp to open at Plattsburg in July next. In following up this invitation, I took pains to urge that some members of the Society should make up their minds, as a sacrifice to their country, to take their yearly vacation this year at Plattsburg, not only for the personal benefit which they would surely obtain, but that from the instruction and experience there gained they could impart to the other members of the Society at the autumn meeting the results which they had observed and the benefits received. In addition to ordinary military training thus opened up to members of the profession, they will, undoubtedly, gain much instruction from physical examination before and after training, before and after bodily exercise of a large number of men, to say nothing of personal hygiene and camp sanitation. There will also be a chance to study such diseases as may occur from exposure to rain, or during trench work, such as they can see nowhere else than at the camp in question.

Every physician does his own business and makes his own income. Any merchant can safely leave his affairs for a while in the charge of a partner or skilled clerks, but a physician is called upon in such an

instance as this to make greater sacrifices than ordinary business men. It would, therefore, seem very desirable that the State Association should, at its approaching meeting, consider whether or not it might be proper from its funds to offer a certain sum for sending, at least, six physicians, and thus assisting them in the payment of their extraordinary expenses, as well as compensating them, to some small extent, for loss of practice, on condition, that upon their return, they will impart to their medical brethren, first in the County Society to which they belong, and later in the Journal of the State Association, the experience which they may have gained.

The various camps begin June 5th, and overlap one another on the following dates, July 12th, August 10th and September 8th, so that between June 5th and October 5th there is continuous instruction open to all who apply. The age limit lies between twenty-one and forty-five. Enrollment blanks may be found with the Presidents of the County Societies, and if more than expected should apply, others can be speedily obtained. The expenses should be about \$30.00 and a uniform for \$10.00, and railroad fares additional. J. A. S.

Optochin, Optoquin or Ethylhydrocuprein in Pneumonia, and its Effect upon the Sight.

Considerable interest has of late been taken in England of this above-mentioned derivative of quinine as used in the serum treatment of pneumonia. It was used largely before the war, during an epidemic in Berlin, also. There is, however, an unfortunate complication arising from the use of this at one-time promising treatment in pneumonia, or in diseases in which the pneumococcus abounds, and that is, loss of sight to an alarming degree. Oliver, in the British Medical Journal for April 22d, mentions a case of this sort, in which during pneumonia a patient took, in all, 120 grains of the drug in question in five-grain doses every three hours during the day. The patient, after many ups and downs with his sight, was at last, after a year of observation, reduced to finding his way about, and later on he might be able to do the plainest sort of labor for a living.

It is well known that this same substance has been highly recommended in the treatment of ulcers of the cornea, in spite of the reports of cases by other observers in which the instillation of a one per cent. solution was followed by rapid destruction of the cornea and total loss of sight.

It would, therefore, seem worthy of noting that optochin, optoquin or ethylhydrocuprein is a drug to be used with the greatest of hesitation, or not at all, without awaiting the results of farther experiments.

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 Welch, F. J., Portland
 Westcott, C. P., Portland
 Whitmore, Wm., Portland
 Whittier, F. N., Brunswick
 Williamson, W. D., Portland
 Witham, A. N., Cumb. Mills
 Wood, H. A., Rockland
 Woodman, D. N., Yarmouthville

*FRANKLIN.

Bell, C. W., Strong
 Bonner, C. A., Skinner
 Brown, E. J., Stratton
 Colby, F. B., Rangeley
 Currier, E. B., Phillips
 Head, O. B., New Sharon
 Higgins, E. C., Phillips
 Howard, A. G., Farmington
 Makepeace, B. F., Farmington

Nichols, J. W., Farmington
 Perkins, J. W., Wilton
 Pratt, G. L., Farmington
 Pratt, H. S., Farmington
 Ross, A. M., Rangeley
 Trefethen, W. J., Wilton
 White, V. O., E. Dixfield
 York, A. I., Wilton

HANCOCK.

Black, R. A., Sullivan
 Bliss, R. V. N., Blue Hill
 Bragg, J. S., Winter Harbor
 Freeman, F. H., Surry
 Gage, I. B., Atlantic
 Hagerthy, A. C., Ellsworth
 Hagerthy, G. R., Bar Harbor
 Higgins, R. G., Bar Harbor
 Hodgkins, Lewis, Ellsworth
 Holt, H. A., W. Sullivan
 Hutchins, J. G., Stonington
 Knowlton, C. C., Ellsworth
 Littlefield, O. A., Blue Hill

Morrison, C. C., Bar Harbor
 Neal, G. A., Southwest Harbor
 Noyes, B. L., Stonington
 Patten, J. H., Bar Harbor
 Phillips, G. A., Bar Harbor
 Phillips, J. D., Southwest Harbor
 Smith, F. Fremont, Bar Harbor and
 Washington, D. C.
 Underhill, C. S., Franklin
 Wakefield, R. W., Bar Harbor
 Wardwell, M. A., Penobscot
 Webster, H. B., Castine
 Woodruff, H. L., Ellsworth

KENNEBEC.

Abbott, C. W., Waterville
 Abbott, H. W., Waterville
 Badger, F. H., Winthrop
 Beach, S. J., Augusta
 Beane, C. H., Hallowell
 Berube, D. T., Augusta
 Boyer, E. W., Waterville
 Bunker, L. G., Waterville
 Campbell, G. R., Augusta
 Clason, S. C., Gardiner
 Cole, F. M., Gardiner
 Coombs, G. A., Augusta

Cragin, D. B., Waterville
 Davies, O. C. S., Augusta
 Desjardins, A. W., Waterville
 Donnell, R. E., Gardiner
 Fish, E. P., Waterville
 Frederick, H. J., Augusta
 Goodrich, E. E., Waterville
 Hall, H. W., Augusta
 Hambleton, M. P., Augusta
 Hardy, T. E., Waterville
 Harris, W. H., Augusta
 Hendee, W. W., Nat'l Soldiers' Home

Hill, J. F., Waterville
 Hurd, B. P., Waterville
 Kagan, S. H., Augusta
 Ladouceur, J. W., Augusta
 Leach, C. H., So. China
 Libby, A. B., Gardiner
 Mabry, C. J. No. Vassalboro
 Mann, L. L., Augusta
 McKay, R. L., Augusta
 Merrill, P. S., Waterville
 Miller, H. W., Brewster, N. Y.
 Milliken, H. A., Hallowell
 Milliken, J. S., Readfield
 Newcomb, C. H., Clinton
 Nutting, J. D., Jr., Hallowell
 Parizo, H. L., Waterville
 Parker, G. C., Winthrop
 Pitman, M. W. H., Riverdale-on-Hudson, N. Y.
 Williams, H. E., Mt. Vernon
 Poulin, J. E., Waterville
 Presson, Dorris M., Augusta
 Witherell, C. H., Oakland
 Young, A. G., Augusta

Reynolds, R. L., Waterville
 Sawyer, Alton, Gardiner
 Shaw, A. A., Clinton
 Simons, R. D., Gardiner
 Small, M. M., Waterville
 Stinson, H. K., National Soldiers' Home
 Strout, F. E., Gardiner
 Stubbs, R. H., Augusta
 Sturgis, K. B., Augusta
 Sturtevant, A. H., Augusta
 Thayer, F. C., Waterville
 Totman, V. C., Oakland
 Towne, J. G., Waterville
 Turner, O. W., Augusta
 Tyson, F. C., Augusta
 Vosburgh, S. E., Augusta
 Walker, F. D., No. Vassalboro
 Washburn, G. E., Augusta

*KNOX.

Adams, F. B., Rockland
 Bartlett, F. O., Rockland
 Brown, F. F., Vinalhaven
 Campbell, F. G., Warren
 Coombs, G. H., Waldoboro
 Foss, A. W., Rockland
 Frohock, H. W., So. Thomaston
 Gribben, H. E., Rockland
 Hadley, L. H., Union
 Hart, W. F., Camden
 Judkins, M. P., Rockland
 Kellar, B. H., Appleton
 Lyford, W. F., Vinal Haven

Nash, A. W., Jefferson
 North, C. D., Tenant's Harbor
 O'Connor, M. J., Rockland
 Sanborn, J. W., Rockland
 Silsbury, E. B., Rockland
 Spear, W. M., Rockland
 Stetson, E. F., Damariscotta
 Steward, C. W., Rockport
 Walker, J. E., Thomaston
 Webster, F. H., Rockland
 Weidmann, S. Y., Rockport
 Young, W. H., Camden

*OXFORD.

Bartlett, H. L., Norway
 Bicknell, R. W., Canton
 Binford, H. J., Mexico
 Bisbee, C. M., Rumford
 Bradbury, B. F., Norway
 Farris, H. R., Oxford
 Fitch, H. F., Brownfield
 Gehring, J. G., Bethel
 Greene, J. A., Rumford
 Haskell, W. B., Oxford
 Heald, H. M., Buckfield
 Hutchins, G. H., Mechanic Falls
 Leslie, F. E., Andover
 Littlefield, J. G., So. Paris
 Marshall, L. H., Hebron
 McCarthy, E. M., Rumford Falls
 Morse, F. W., Canton
 Nile, J. A., Rumford

Noyes, H. L., Rumford
 Noyes, L. F., Rumford
 Noyes, S. E., Rumford
 Parady, L. W., Rumford Point
 Pease, W. M., Dixfield
 Rankin, C. B., Mechanic Falls
 Rowe, W. T., Rumford
 Stanwood, A. L., Rumford
 Stewart, D. M., So. Paris
 Stimpson, A. J., Waterford
 Sturtevant, J. S., Dixfield
 Tibbetts, R. R., Bethel
 Tobie, C. H., Mechanic Falls
 Trufant, L. H., Norway
 Wheeler, F. E., West Paris
 Wheet, F. E., Rumford
 Wight, E. A., Bolster's Mills
 Wight, I. H., Bethel

PENOBSBOT.

Adams, Lester, Bangor
 Bayard, C. H., Orono
 Blanchard, L. H., Pittsfield
 Brown, A. A., Bangor

Brown, E. E., Bangor
 Bryant, B. L., Bangor
 Bryant, C. S., Millinocket
 Bunker, D. W., Bangor

Burgess, C. H., Bangor
 Caulfield, G. B., Bangor
 Chapman, H. M., Bangor
 Clough, H. T., Bangor
 Coe, T. V., Bangor
 Crane, H. H., Bangor
 Edmunds, C. D., Bangor
 Elkins, P. H., Oldtown
 Ellingwood, Wm., Bangor
 Emerson, O. R., Newport
 Emery, Wm. E., Bangor
 Farnham, E. J., Patten
 Fellows, W. E., Bangor
 Ford, L. H., E. Eddington
 Goodrich, E. P., Winterport
 Hall, L. F., Lewiston
 Hall, W. C., Orono
 Hammond, W. J., Enfield
 Haskell, P. T., Bangor
 Hasty, W. L., Hampden
 Hennessey, Daniel, Bangor
 Higgins, G. I., Plymouth
 Hills, F. H., Bangor
 Howes, L. M., Bangor
 Hunt, Barbara, Bangor
 Hunt, W. L., Bangor
 King, H. A., Bangor
 Knowles, R. N., Bangor
 Landry, G. E., Oldtown
 Lethiecd, J. A., Brewer
 MacDougal, W. E., Millinocket
 Madden, M. C., Oldtown
 Mansfield, Blanche M., Bangor
 Marquis, E. M. C., Oldtown
 Marsh, S. N., West Enfield
 Mason, L. S., Bangor
 Mason, W. C., Bangor
 McCann, Daniel, Bangor
 McCurdy, C. L., Bangor
 McNally, W. P., Bangor
 McNeil, H. D., Bangor
 McVety, J. J., Corinna
 Milliken, H. J., Bangor
 Murphey, J. H., Dexter
 Nason, C. J., Winterport
 Nason, W. H., Hampden
 Nealey, E. T., Bangor

Norris, L. F., Bangor
 O'Brien, C. R., Bangor
 Osgood, H. W., Bangor
 Pastor, L. M., Bangor
 Peters, W. C., Bangor
 Philbrick, C. S., Bangor
 Porter, E. A., Pittsfield
 Purington, Watson, Kenduskeag
 Redman, F. L., Corinna
 Redman, S. J., Dexter
 Richardson, H. K., Bradford
 Robinson, D. A., Bangor
 Robinson, H. L., Bangor
 Rowe, A. W., Bangor
 Russell, J. P., So. Brewer
 Sanger, E. B., Bangor
 Sawyer, J. W., Dexter
 Scammon, C. L., E. Millinocket
 Schriver, A. H., Brewer
 Sewall, J. J., Newport
 Skolfield, E. B., E. Corinth
 Simmons, W. H., Bangor
 Small, A. E., Bangor
 Smith, A. K. P., Bangor
 Snow, H. E., Bucksport
 Starrett, J. F., Bangor
 Strout, A. C., Garland
 Taylor, C. J., Bangor
 Thomas, C. M., Brewer
 Thomas, C. O., Brewer
 Thompson, H. E., Bangor
 Thompson, J. B., Bangor
 Tibbets, G. B., Orrington
 Thornley, R. A., Bangor
 Tomlinson, E. E., Orono
 Trickey, W. B., Pittsfield
 Twitchell, A. H., Oldtown
 Varney, J. R., Oldtown
 Walton, R. D., Frankfort
 Way, G. F., Jr., Lincoln
 Weld, G. G., Oldtown
 Weymouth, F. D., Charleston
 Whitney, W. E., Bangor
 Woodecock, Allan, Bangor
 Woodcock, G. M., Bangor
 Woods, J. B., Bangor
 Wright, L. G., Bangor

PISCATAQUIS

Barrett, J. A., Sangerville
 Brown, M. O., Dover
 Bumps, W. A., Dexter
 Crosby, N. H., Milo
 Dore, G. E., Guilford
 Flint, E. T., Foxcroft
 Ford, L. C., Milo
 Hall, C. C., Foxcroft
 Hathaway, W. R., Milo
 Hunt, Hiram, Greenville
 March, R. H., Guilford

McDonough, T. H., Brownville
 McFadyen, James, Milo
 Merrill, E. D., Foxcroft
 Potter, J. L., Guilford
 Pritham, F. J., Greenville Junction
 Purington, W. A., Foxcroft
 Sampson, H. W., Monson
 Schriver, A. E., Milo
 Snow, H. A., Milo
 Stanhope, A. H., Dover
 Wilson, J. H., Cambridge

SAGADAHOC.

Bailey, B. A., Wiscasset	Lincoln, J. O., Bath
Barker, B. F., Bath	Marston, E. J., Bath
Fox, Horace, Bath	Mullin, S. S., Bath
Fuller E. M., Bath	Peabody, F. A., Richmond
Gregory, G. A., Boothbay Harbor	Pearl, C. A., Bath
Hannigan, R. C., Bath	Price, W. N., Richmond
Irish, I. C., Bowdoinham	Snipe, L. T., Bath
Kershner, W. E., Bath	Stott, A. A., Woolwich
Leathers, Enoch, Wiscasset	Williams, A. R., Phippsburg

SOMERSET.

Andrews, E. C., No. Anson	Piper, J. O., Solon
Blance, Clarke, Norridgewock	Robinson, F. J., Fairfield
Brown, R. C., Bingham	Sawyer, W. G., Madison
Dascomb, L. A., Skowhegan	Smith, H. W., Norridgewock
Greene, S. F., Solon	Stinchfield, W. S., Skowhegan
Hopkins, P. O., Bingham	Tash, I. P., Fairfield
Marston, H. E., No. Anson	Thibodeau, J. A., Madison
Menges, O. A., Athens	Wadsworth, J. D., Skowhegan
Milliken, W. S., Madison	Williams, B. P., Bingham
Moulton, C. A., Hartland	

*WALDO.

Cook, N. R., Brooks	Millett, Adelbert, Belfast
Fairchild, S. L., Searsport	Small, Elmer, Belfast
Hoit, C. B., Liberty	Stevens, E. L., Belfast
Johnson, S. W., Belfast	Vickery, O. S., Belfast
Kilgore, A. E., Belfast	Wilson, E. A., Belfast
Kilgore, G. C., Belfast	

WASHINGTON.

Barker, N. B. T., Woodland	Hull, I. B., Jonesport
Bennett, E. H., Lubec	Johnson, C. E., Princeton
Best, H. H. W., Pembroke	Johnson, H. O., Machias
Brooks, J. E., Eastport	Johnston, S., Vanceboro
Bunker, W. H., Calais	Larsen, D. F., Machias
Burritt, G. L., Harrington	Longfellow, J. W., Machias
Byron, J. R. C., Rumford	Maloney, D. A., Robbinston
Cleveland, W. F., Eastport	Marion, J. W. J., Calais
Crane, J. W., Dennysville	Mason, H. B., Calais
Cranston, E. A., Calais	Miner, W. N., Calais
Cummings, D. F., Cherryfield	Murphy, Alex., Lord's Cove,
Curtis, A. K., Danforth	Deer Island, N. B.
Deinstadt, W. M., St. Stephen, N. B.	Porter, M. L., Danforth
Dibblee, G. O., Moore's Mills, N. B.	Smith, A. L., Machias
DePue, H. R., Princeton	Smith, J. R. N., Milltown, N. B.
Duston, F. A., St. Stephen, N. B.	Snell, F. W., Isle au Haut
Dyas, A. D., St. Stephen, N. B.	Sullivan, E. V., St. Stephen, N. B.
Dyas, I. E., Eastport	Tustin, Ruth, Eastport
Gilbert, W. J., Calais	Walling, J. A., Milbridge
Grady, Eliza, Eastport	White, E. A., Columbia Falls
Gray, W. E., Milltown, N. B.	Young, M. L., Oak Bay, N. B.
Holland, R. A., Calais	

*YORK.

Abbott, P. H., So. Waterboro
 Allen, S. W., York
 Baker, W. H., W. Buxton
 Blagden, C. W., Sanford
 Bragdon, F. A., Springvale
 Brown, L. H., No. Berwick
 Burnham, E. L., Sanford
 Carpenter, L. W., Limerick
 Carty, J. D., Kittery Point
 Cochrane, J. D., Saco
 Cook, C. E., So. Berwick
 Cook, E. C., York Village
 Davis, A. S., Springvale
 Dolloff, D. E., Biddeford
 Durgin, H. I., So. Eliot
 Elliott, W. T., Berwick
 Emery, C. J., Biddeford
 Ferguson, M. H., Biddeford
 Girard, L. A., Biddeford
 Goodale, W. T., Saco
 Gordon, J. W., Ogunquit
 Gove, R. S., Sanford
 Grant, H. D., Bowdoinham
 Haley, J. D., Saco
 Hill, P. S., Biddeford
 Hill, S. C., Sanford
 Hurd, H. W., Biddeford
 Illsley, H. P., Limington
 Jones, A. L., Old Orchard
 Kelly, W. H., Sanford
 Kendall, C. F., Biddeford
 Lamoureux, Arthur, Sanford
 Lander, C. E., Alfred
 LaRochelle, J. R., Biddeford
 L'Heureux, J. N., Sanford
 Lightle, W. E., No. Berwick

Lord, F. C., Kennebunk
 Marshall, S. B., Alfred
 Maybury, R. L., Saco
 Maynard, A. C., Biddeford
 McCorrison, J. O., No. Berwick
 Moulton, B. M., Springvale
 O'Connor, J. M., Biddeford
 O'Neill, E. D., Biddeford
 Owen, H. A., Bar Mills
 Phillips, F. E., Wells
 Pillsbury, C. W., Saco
 Powell, L. L., Saco
 Precourt, G. C., Biddeford
 Prescott, H. L., Kennebunkport
 Randall, J. A., Old Orchard
 Ross, F. A., So. Berwick
 Ross, F. M., Kennebunk
 Shannon, J. H., Saco
 Shapleigh, E. E., Kittery
 Sleeper, F. E., Biddeford
 Small, F. E., Biddeford
 Smith, F. W., York Village
 Smith, W. W., York Harbor
 Stickney, Laura B., Saco
 Sullivan, P. S., Sanford
 Sleeper, C. M., So. Berwick
 Thompson, C. E., Saco
 Traynor, C. F., Biddeford
 Varrell, W. W., York Harbor
 Wentworth, B. F., Scarboro
 Wentworth, D. W., Sanford
 Weymouth, H. A., Saco
 Wiley, A. G., Bar Mills
 Willard, L. E., Saco
 Willis, J. L. M., Eliot

STATE MEMBERS.

Alden, Eben, Rockland
 Allen, G. A., Lovell
 Andrews, A. M., Gray
 Barrows, H. C., Boothbay Harbor
 Burroughs, A. H., Westbrook
 Card, A. M., Head Tide
 Chenery, F. L., Wayne
 Foss, C. W. P., Brunswick
 Hale, L. L., Chebeague Island
 Hayden, B. F., National Soldiers' Home

Higgins, Lelia, Wilton & Portland
 Huse, B. D. E., Camden
 Larabee, C. C., Gouldsboro
 Murch, A. F., Westbrook
 Northcott, E. M., Portland
 Reed, A. P., Naples
 Stevens, T. H., Boothbay Harbor
 Sturgis, J. L., New Gloucester
 Wilson, C. E., E. Hiram

NON-RESIDENT MEMBERS.

Blanchard, R. G., Dover, N. H.
 Dennett, D. A., Arlington, Mass.
 Hale, Wm., Gloucester, Mass.
 Illes, B. G., New Brunswick, N. J.
 Morgan, G. P., Dover, N. H.

Overlook, S. B., Pomfret, Conn.
 Rowe, G. D., Providence, R. I.
 Sullivan, M. B., Dover, N. H.
 Tolman, G. A., Dover, N. H.

STATE PROGRAM.

WEDNESDAY, JUNE 7.

9.00 A. M.

Call to Order by the President,	E. E. HOLT, Portland
Invocation,	REV. DR. SNOWDEN, Portland
Introduction of Visiting Delegates.	
"Climate,"	W. T. ROWE, Rumford
	Discussion opened by E. M. McCarty, Rumford, and Olin Pettengill, Hebron Sanitarium.
"Duties of County Secretaries,"	J. A. SPALDING, Portland
	Discussion opened by S. J. Beach, Augusta, and A. L. Jones, Old Orchard.
"Scoliosis,"	E. G. ABBOTT, Portland

AFTERNOON SESSION.

2.00 P. M. SHARP.

President's Address,	E. E. HOLT, Portland
"Ophthalmology in Relation to General Medicine,"	
	JOHN E. WEEKS, New York City
	Professor of Ophthalmology in the University and Bellevue Hospital Medical College, New York.
"Asthma in Children,"	F. P. WEBSTER, Portland
	Discussion opened by R. B. Moore, Portland.
"The Medical Cult Absurdity,"	ADAM P. LEIGHTON, Portland
	Discussion opened by S. C. Gordon, Portland, and F. Y. Gilbert, Portland.

THE ANNUAL BANQUET

Will be held at the Congress Square Hotel at 8.00 P. M. Ladies are expected to attend. Immediately after the dinner, Dr. Wallace Buttrick, Secretary of the General Education Board of the Rockefeller Foundation, will give an illustrated lecture upon "Experiences of a Layman on a Journey of Three Months in Japan, Korea and China with Three Eminent Medical Men". Attendance at the lecture is possible only for those who purchase banquet tickets.

THURSDAY, JUNE 8.

9.00 A. M.

"The Surgical Significance of Abdominal Contusions,"

F. H. JACKSON, Houlton

Discussion opened by R. W. Wakefield, Bar Harbor, and W. H. Bradford, Portland.

"Surgical Treatment of Some Infections of the Uro-genital Tract,"

W. L. COUSINS, Portland

Discussion opened by J. F. Thompson, Portland,
and W. D. Williamson, Portland.

"Eclampsia and Misfit Labor; Their Modern Management,"

S. P. WARREN, Portland

Discussion opened by G. H. Coombs, Walldoboro, and P. W. Davis, Portland.

AFTERNOON SESSION.

2.00 P. M. SHARP.

Report of Committee on Necrology, J. A. SPALDING, Portland

Report of House of Delegates.

Report of Council.

Election of President.

ANNUAL ORATION.

"Digitalis Therapy in Cardiac Disease,"

F. S. MEARA, New York City

Professor of Therapeutics at Cornell Medical School, New York City.

4.30 P. M.

SAIL AND SHORE DINNER.

The Cumberland County Medical Society invites the members of the Maine Medical Association to a sail, followed by shore dinner at Long Island.

Tickets for the annual banquet and shore dinner should be obtained at the time of registration.

EMOTIONAL GLYCOSURIA.

F. S. Hammett, Los Angeles (*Journal A. M. A.*, May 6, 1916), gives a summary of the recent literature of emotional glycosuria since Cannon and others demonstrated that glycosuria was produced in animals from emotional excitement in the form of pain, fear or rage, and reports his own investigation of the subject with different stimuli. The different types of stimuli studied were four. The first was the effect of participation in a decisive football game, in which it was found that nine out of the seventeen subjects developed a glycosuria. A second type of disturbance was the effect of watching the game with a possibility of participating. Six of the seven substitutes developed glycosuria. The third type of excitement was observation of the game without prospect of participating. Six of the thirteen spectators examined developed the condition. The fourth and last type of stimulus was a short but difficult written examination given to first year medical students, and sugar was found in eleven of the twenty-seven examined. That of every one of the subjects tested was free from sugar before the test had been demonstrated. Hammett believes that physicians in general should recognize this potentiality and not rely on diagnostic sugar tests too implicitly. Further observations to test the duration of the condition were made four hours after the excitation on eleven of the students examined, and in only one was urinary sugar demonstrable. He concludes, therefore, that emotional glycosuria is only transitory in nature, soon disappearing after the exciting cause.

Abstracts from Current Literature.

Gastric Ulcer as a Sequel to Gastric Ulcer.

By Wm. Fitch Cheney, San Francisco, Journal A. M. A., October 9, 1915.

As regards the frequency with which cancer develops in gastric ulcer, there has always been disagreement among observers. Some have insisted that cancer rarely developed on an ulcer site, others that it was a common occurrence. Up to the past decade, the conclusion was generally reached that about six to ten cases of cancer in every one hundred originated from gastric ulcer, and these percentages are generally given in the text-books on stomach diseases. During the past ten years, however, new light has been thrown upon this subject.

In 1904, Robson stated that in 59.3% of operatively demonstrated gastric cancers, ulcer had preceded. Moynihan, in 1906, reported that sixteen out of twenty-two gastric cancer cases, or 72%, gave a history of ulcer. And again in 1909, basing his conclusions on one hundred operations for gastric cancer, stated: "Of all patients operated upon by me for cancer of the stomach, approximately two in every three have had a history of previous gastric ulcer." Graham, in 1908, was able to show that 62% of all the patients at the Mayo Clinic for gastric ulcer gave a precancerous or ulcer history. Wilson & McCarthy, pathologists at the Mayo Clinic, announced in 1909 that 71% of the cases of gastric cancer showed sufficiently gross and microscopic evidence of previous ulcer to warrant labeling them "Cancer developing on ulcer".

The German pathologists, surgeons, and clinicians have not found any such large percentages, and some maintain that it is often the case that an ulcer forms on the cancer or beside it and is due to the plugging of nutritive vessels and subsequent ulcers. Friedewald, in a clinical study of one thousand cases of gastric cancer, found only 23% that gave a history of previous digestive trouble and only 73% giving an ulcer history. Lockwood found only 7% of ulcer histories in one hundred and seventy-four cases of gastric cancer. Of the 60.5% of cancer on ulcer cases reported by Wilson, he later found that the clinical and pathological diagnosis agreed in 80%, making a fairly positive diagnosis in about 50% of five hundred and sixty-six cases. Cheney says: "From all the foregoing it seems to be proved that gastric cancer originates from ulcer much more fre-

quently than was formerly believed," and he believes it occurs in at least 50% of gastric cancer cases.

Einhorn, Stockton, Lockwood, Boas and other internists conclude, from their observations, that the percentage of cancer on ulcer cases is much smaller—they give it as from 5 to 15%.

R. F. C.

Physiological Considerations in the Differential Diagnosis of Neurasthenic, Hysterical and Psychotic Symptoms.

By Donald Gregg, M. D., Assistant Physician to Out-Patients, Boston Psychopathic Hospital, Boston Medical and Surgical Journal, Feb. 24, 1916.

The writer suggests that a distinction between hysteria and neurasthenia might rest upon physiological grounds, that is, upon whether the symptoms are referable to the central nervous system or to the autonomic nervous system. It will be at once recognized that in hysteria the symptoms lie almost entirely in the field normally controlled by the central nervous system, symptoms which, for the most part, may be voluntarily imitated, as, for example, paralyses, contractures, motor agitations, and disturbances of speech or of vision. On the other hand, in neurasthenic conditions the symptoms lie mainly in the field enervated by the autonomic nervous system. The most common of these symptoms are the various functional digestive, circulatory and respiratory disturbances; also vasomotor and secretory abnormalities.

Naturally this distinction between hysterical and neurasthenic symptoms is by no means absolute, as many cases will show a combination of these two classes of manifestations. In a general way, however, functional nervous cases showing a predominance of symptoms referable to the central nervous system might be classified as hysterical, while those showing a predominance of symptoms referable to the autonomic nervous system might be classed as neurasthenic.

Leaving the neuroses and coming to the psychoses, we find in many cases of the latter a lack of correspondence between the emotional attitude and its physiological concomitants referable to the activity of the autonomic nervous system. For example, in some, psychoses may be harassed by terrible fears, but without increase of the pulse or respiratory rate such as would be found in normal individuals under the influence of fear. In other words, there is here a suggestion of a possible break between the emotional activity and the autonomic nervous system.

H. M. SWIFT.

A Study of the Comparative Toxicity of the Various Preparations of Mercury.

By Jay Frank Schamberg, John A. Kolmer, G. W. Raiziss,
Journal Cutaneous Diseases, December, 1915.

Among other interesting facts, this paper presents tabulations of animal experimentation from which one should perceive the importance of careful consideration of the patient and frequent examination of the patient's urine before and during mercury medication.

Some of the conclusions are as follows :

"The toxicity of the various mercurial salts is directly proportionate to the amount of pure mercury contained.

"The inorganic salts, as represented by the bichloride, are no more toxic than the numerous organic combinations that are commonly employed.

"The average relationship as to the toxicity between the intravenous and intramuscular administration of mercury, in general, is about 4 to 1.

"The insoluble preparations, such as grey oil, calomel and the salicylate of mercury, are absorbed at the rate of a little over 1% of the injected amount per day.

"Even at the end of six weeks almost 50% of the mercury of the insoluble preparations may be unabsorbed at the site of injection. The injection of the usual doses of insoluble mercury compounds at weekly intervals must invariably lead to accumulation of the drug in the tissues.

"Mercury has a great affinity for the cells of the kidney, and this organ is one of the earliest involved in mercurial intoxication. Hence, during the intensive treatment with mercury, the necessity of careful examination of the urine from time to time should be emphasized."

B. B. F.

The Induction of Labor in Normal Pelves at Term.

By Dr. Charles B. Reed, Chicago, Surgery Gynecology and Obstetrics.

This bold and new idea as embodied in Dr. Reed's paper met with the opposition and adverse criticism which it seemingly deserves. Dr. Reed says, in short, that the proven physiological duration of pregnancy is 275 days, hence at the termination of such a time the woman should give birth to her child. He argues that the time for the beginning of labor is by no means an indifferent matter, nor is it an affair that should be left altogether to accident or to the uncertainty

of chance or physical idiosyncrasy. He believes that we surely should give to the human family the amount of attention and care which the horticulturist bestows upon his apples. The apple is picked at maturity. Why not the child?

Dr. Reed believes that he can assure himself, in each instance, that the child in utero is mature, and given this mature child he believes that he should determine the onset of labor. Making use of Ahlfeld's rule and Mueller's method for estimating the size and maturity of the child, and with due consideration of the menstrual history and the day of quickening, the date for the labor is definitely appointed. The induction of labor is brought about by the use of the Voorhees bag. It is unnecessary to describe the steps of the operation for the technic is only too well known.

Dr. Reed says that there were two objections to this procedure ever before him—the possibility of infection and prematurity. The former has never shown itself and the latter happened but once and that in a case supervised by an interne.

The results obtained by the use of the bag in one hundred consecutive cases were submitted in the course of his paper. It is to be noted there were seven foetal deaths in this number, two asphyxiated, two died from compression of the cord, two the result of "forceps delivery" and the seventh from prematurity. Forceps cases were twenty-three in number, "a fairly high percentage, possibly due to the fact that some of the posterior positions would have rotated and a certain number of the arrested heads would have delivered if time enough had been allowed".

Dr. Reed says that the highest advantage of his procedure lies in the fact that the course of the labor is entirely under the control of the obstetrician from start to finish. There is no timidity, indolence or doubt. The day is appointed, the cervix is dilated slowly or quickly and the woman delivered. The process works in strict harmony with the principles of modern science.

A. P. L., JR.

The Modern Treatment of Eclampsia.

By Dr. P. Werner, Therapeutic Monthly, Vienna.

This epitome of Dr. Werner's excellent article is of interest because it surely shows that the trend of the times is towards conservatism in the treatment of this disease. Particularly is this paper of interest, because the author is an obstetrician in the Wertheim Klinik, Vienna, where accouchement force or immediate delivery in the treatment of eclampsia has long been practiced. Slowly, but surely, obstetricians are discarding this old-fashioned therapy and the Stroganoff

or Dublin morphine method is coming into its own! The results gained prove its value.

"It is generally agreed that eclampsia is an intoxication but the true source of the toxin is still unknown. It has been attributed by some to the placenta and by others to toxins from the foetal serum. Neither theory explains all cases of eclampsia, for it has occurred in cases of hydatidiform mole and after delivery of foetus and placenta, and there are those cases which recover during pregnancy when toxins from either foetus or placenta would still be active."

In Vienna, immediate emptying of the uterus was previously practiced in each case of eclampsia. Vaginal Cæsarean section was much in vogue. Now, however, this radical treatment has been abandoned and chief reliance is placed on bleeding, narcotics with thorough elimination. The treatment used is the Stroganoff method, making use of morphia in repeated doses with chloral hydrate by rectum. Venesection is held in high esteem. If conditions are favorable for easy delivery of the child it is extracted by forceps.

In a series of cases up to 1913, which numbered one hundred and twenty, Werner had a maternal mortality of 15.8% and a foetal mortality of 44.3%. In thirty-eight cases since, the maternal mortality was only 5.2 and the foetal 14.6%.

A. P. L., JR.

DO YOU KNOW THAT

Efficient muzzling of dogs will eradicate rabies?

The protection of the health of children is the first duty of the Nation?

Bad temper is sometimes merely a symptom of bad health?

Insanity costs every inhabitant in the United States \$1 per year?

The U. S. Public Health Service has proven that typhus is spread by lice?

Untreated pellagra ends in insanity?

In the lexicon of health there is no such word as "neutrality" against disease?

The death rate of persons under 45 is decreasing; of those over 45 it is increasing?

County News and Notes.

CUMBERLAND.

CUMBERLAND COUNTY MEDICAL SOCIETY.

The regular stated meeting of the Cumberland County Medical Society was held at the Congress Square Hotel, Portland, Friday evening, April 14th. It was one of the largest attended meetings known in the history of the Society, over one hundred and forty physicians being present.

Dr. James G. S. Jamieson and Dr. DeForest Weeks, of Portland, were elected to membership in the Society, their names being favorably reported by the Board of Censors.

Dr. Spalding, the President, spoke in his enthusiastic and interesting manner on the success of the baby week program, recently carried out in Portland. He also called the attention of the members to the law providing pensions for the blind, arguing for an increased fee for examination, which should be carefully made by a competent oculist. Relative to the matter of school inspection and the fact that the City Government has recently refused to provide funds for this important work, Dr. Spalding and Dr. Haney made remarks. The Society voted to send to the Board of Mayor and Aldermen a resolution, asking that sufficient money be appropriated that this work of the school inspectors may go on without further interruption. This communication has been sent to the City Government by the Secretary.

The paper of the evening was read by Dr. Frank E. Carmichael, the chairman of the local Board of Health. His subject was "The Disposal of Municipal Refuse". No more timely or interesting paper has been presented to the doctors than this one, and it was voted that the entire dissertation should be printed in the Maine Medical Journal at an early date.

Following the reading of Dr. Carmichael's paper, an innovation was offered to the Society, in the form of moving pictures of surgical operations, shown by the Clinical Film Co., of New York City. These pictures have aroused the interest of the medical profession throughout the country, inasmuch as they seem to enhance the possibility of increasing the efficiency of medical teaching in our medical colleges, and by reason of more detailed illustration for papers and lectures on medical subjects. Unfortunately, the electrical current in the hotel was not of the required strength to allow for clear pro-

jection, but, nevertheless, the films were shown to the seeming satisfaction and delight of all the members. Dr. Fred H. Albee, of New York, was present, and while pictures of his operations were thrown upon the screen, he explained the technic involved in his bone work.

Following the scientific session, the usual buffet lunch and refreshments were served in the dining room.

DR. ADAM P. LEIGHTON, JR.,
Secretary.

PORLAND MEDICAL CLUB.

The fifth meeting of the year was held at the Columbia Hotel on Thursday evening, May 4th, with thirty-two members present.

Dr. Carl Robinson read his resignation as Secretary, which is necessitated by his departure for France with the Harvard Unit.

Dr. H. M. Swift was elected to serve as Secretary for the remainder of the year.

Dr. Waldo T. Skillin and Dr. Leroy S. Syphers, of South Portland, were elected to membership.

A resolution was adopted to the effect that it is the sentiment of the Club that a physician trained in matters of public health be appointed health officer for the City of Portland.

It was voted that all medical officers of the United States Army and Navy and of the Marine Hospital and Public Health Service stationed at Portland be made honorary members and be cordially invited to attend the meetings.

A committee to arrange for the annual outing, consisting of Dr. Philip Thompson, Dr. Benjamin Foster and Dr. Haney, was appointed.

Dr. Holt, Jr., and Dr. Burrage reported a case of brain tumor with operation and subsequent improvement. An X-ray plate of the tumor was shown by Dr. Vanainee.

Dr. Swasey reported a case of intestinal obstruction with operation and recovery.

Dr. Richard Chase spoke concerning the constituents of certain proprietary preparations.

Dr. Chase, in calling attention to Milk of Magnesia, showed (1) that Phillips' contains 24 grains Mg. H₂O₂ to the ounce, (2) that it is put up in 12 ounce bottles, with the name of the preparation and of the manufacturer blown into the bottle and (3) that it retails for 50c. per bottle. Parke, Davis and Company's Mist. Magnesiæ contains 32 grains Mg. H₂O₂ to the ounce, is put up in 16 ounce *plain bottles* without lettering thereon, and retails for 50c. per bottle. He quoted from

a letter received from W. A. Puckner, of the Council on Pharmacy and Chemistry, "The Journal A. M. A. has published nothing in regard to Phillips' Milk of Magnesia. The Council took up the consideration of the product on its own initiative some years ago. The trade package was found to conflict with Rule 4, in that the label recommended its use in specific diseases and because of the lettering on the bottle. The manufacturer was invited to submit the product to the Council, but this invitation was not accepted, and the Council was obliged to refuse recognition to this preparation." For economic reasons, to say nothing on the ethical side of the question, it is apparent that the Parke, Davis & Company's product should receive preference.

The paper of the evening "X-Ray in Internal Medicine", was read by Dr. Vanamee. Many interesting plates were exhibited, showing lesions in lungs, stomach and intestines. Of especial interest to the members were the plates showing lesions in pulmonary tuberculosis, and it seemed to be the opinion of many that X-ray examination would prove of considerable practical value as an aid in the detection of early cases.

H. M. SWIFT,
Secretary.

PENOBCOT.

PENOBCOT COUNTY MEDICAL ASSOCIATION.

The regular monthly meeting of the Penobscot County Medical Association was held at the Bangor House, April 18, 1916.

Dr. L. H. Blanchard, of Pittsfield, a member of the Somerset County Association, was transferred to our Society.

Dr. H. D. McNeil, of Bangor, was elected to membership and the application of Dr. Herbert C. Scribner, of Bangor, was received and referred.

WASHINGTON.

WASHINGTON COUNTY MEDICAL SOCIETY.

The regular meeting of the Washington County Medical Society was held in Eastport Thursday, May 11th, at 10.00 A. M.

In accordance with the established policy of the Society, after a business session, the meeting was opened as a clinic. Twelve patients were presented for examination, diagnosis, and recommendations for treatment. Two short papers, with illustrative case reports, were read.

One new member was elected.

H. B. MASON,
Secretary.

The matter of a fee table was discussed, and a committee, composed of Drs. J. B. Thompson, Cram and McNally, appointed to consider the proposition and report at the next meeting.

After supper we had the pleasure of listening to Dr. Stephen Rushmore, of the Carney Hospital, who gave us a very instructive paper on "Weak Labor Pains".

Discussion followed.

Those present:

Dr. Stephen Rushmore, Boston, Mass.	Dr. J. B. Thompson, Bangor.
Dr. F. W. Peabody, Boston, Mass.	Dr. A. E. Small, Bangor.
Dr. E. B. Sanger, Bangor.	Dr. Wm. E. Emery, Bangor.
Dr. Harry Osgood, Bangor.	Dr. B. L. Bryant, Bangor.
Dr. J. F. Starrett, Bangor.	Dr. C. M. Thomas, Brewer.
Dr. Wm. C. Mason, Bangor.	Dr. Wm. E. Fellows, Bangor.
Dr. C. S. Philbrick, Bangor.	Dr. Edw. Marquis, Old Town.
Dr. H. F. Clough, Bangor.	Dr. G. M. Woodcock, Bangor.
Dr. F. D. Weymouth, Charleston.	Dr. Allen Woodcock, Bangor.
Dr. W. C. Hall, Orono.	Dr. H. M. Chapman, Bangor.
Dr. Lester Adams, Bangor.	Dr. E. A. Porter, Pittsfield.
Dr. L. S. Mason, Bangor.	Dr. L. H. Blanchard, Pittsfield.
Dr. J. J. Sewall, Newport.	Dr. W. S. Purrington, Kenduskeag.
Dr. I. I. Higgins, Plymouth.	Dr. Daniel McCann, Bangor.
Dr. D. A. Robinson, Bangor.	Dr. A. H. Schriver, Brewer.
Dr. H. F. Quinn, Bangor.	Dr. C. H. Burgess, Bangor.
Dr. H. H. Cram, Bangor.	Dr. W. R. L. Hathaway, Milo.
Dr. Wm. P. McNally, Bangor.	Dr. J. P. Russell, South Brewer.
Dr. H. D. McNeil, Bangor.	Dr. G. E. Landry, Old Town.
Dr. W. L. Hunt, Bangor.	Dr. H. J. Milliken, Bangor.
Dr. Geo. B. Caulfield, Bangor.	H. J. Milliken, <i>Secretary</i> .

PERSONAL NEWS AND NOTES.

Dr. R. A. Graves, who is one of our younger members, started Saturday for France with hospital corps in charge of Dr. Blake, of New York.

Dr. Hunt, of Island Falls, is with the Crocker Land Expedition in the Arctic regions.

Dr. A. L. Sawyer, of Fort Fairfield, has gone to New York for special work.

Dr. A. D. Sawyer, who has been in poor health for the past two years, has very much improved in health, and has resumed active practice.

The Aroostook County Medical Association will hold its annual meeting at Houlton, June 20th.

Dr. Arthur G. Wiley, of Bar Mills, Bowdoin Medical 1903, is the candidate for the Democratic nomination for Treasurer of York County.

Dr. A. L. Jones, of Old Orchard, has been re-elected a member of the York County Democratic Committee for a term of two years.

Dr. David D. Murray, formerly of Lebanon, has located in Berwick.

Dr. Omer E. Boivin has left Biddeford and returned to Fall River, Mass.

Drs. Carl M. Robinson and Thomas Foster, son of Dr. B. B. Foster, both of Portland, will sail the middle of the month with the Harvard Unit for service in the American Red Cross, and will probably be located at some base hospital for the Allies.

Dr. Hugh Francis Quinn, a member of Penobscot County Medical Society, died Friday, April 29th, of acute Bright's disease. He was born in 1879, and graduated from the Medical School of Maine in 1909.

Owing to the withdrawal of troops from their regular stations for duty on the Mexican border, the War Department has been compelled to abandon the camps of instruction for officers of the Medical Reserve Corps that were to be held during the coming summer.

ANTITYPHOID VACCINATION.

P. G. Weston, Warren, Pa. (*Journal A. M. A.*, April 8, 1916), reports the methods and results of antityphoid vaccination of 3,500 patients in an institution for the insane. Newly admitted patients were not immunized at once, but at intervals of six months all patients admitted during that time were inoculated on the same day. It was found convenient to do the work at night, after the patients had retired, on account of the liability of their making resistance. Three doses were given each patient at intervals of three days and in all over 10,500 inoculations were made. The reactions observed were, in the mild class, an area of hyperemia from 5 to 7 cm. in diameter, with or without edema, and a feeling of soreness in the arm. In the moderate type of reaction there was marked hyperemia and edema extending to the elbow, pains in the arm and general lassitude. The severe ones showed marked hyperemia and edema with chills and pains in back and leg and the patient confined to bed. Agglutination tests were carried out in the way described in his former article in *The Journal*, Oct. 26, 1912, p. 1536. Blood taken from 2,500 patients before inoculation failed invariably to cause agglutination at a dilution of 1: 250, while blood taken ten days after the last inoculation gave a positive result at 1: 250 in 100 per cent. and over 90 per cent. in all cases. The duration of the immunity is unknown. One case of typhoid fever developed three months after inoculation. It is now three and a half years since the first inoculation was made. Weston gives a table giving the principal reports of *en masse* typhoid inoculation, all which he has been able to collect, excluding those from the army.

THYMOL FROM HORSEMINT.

Government Specialists Find Commercial Possibilities in Development of New Industry.

OFFICE OF INFORMATION, U. S. DEPT. OF AGRICULTURE,
WASHINGTON, D. C.

That the commercial production in this country of thymol from horsemint may be, under favorable circumstances, a profitable undertaking is indicated by the recent investigations of the U. S. Department of Agriculture, the results of which are published in Bulletin 372. Thymol is extensively used in medicine and forms the basis of a number of important pharmaceutical compounds. In the past it has been imported from northern Europe, where it is manufactured from ajowan seed, grown in northern India. Now that the European war has reduced these importations from over 18,000 pounds in 1914 to a little more than 2,000 in 1915, it is believed that to some extent the demand can be supplied at home. For several years the Department of Agriculture has been conducting experiments with horsemint, which occurs as a common weed in many localities. These experiments have resulted in improving the plants by selection to a point which it is said warrants the use of horsemint for the commercial production of thymol.

Horsemint is found wild on light, sandy soils over the entire region from southern New York to Florida and westward to Wisconsin, Kansas and Texas. It is probable that it will thrive under cultivation wherever it is found growing wild, but local economic conditions must be considered in determining whether or not its production would be profitable. The investigations of the Department of Agriculture indicate that by distilling the improved plants an average of twenty pounds of oil per acre may be obtained from first-year plantings, and that in succeeding years the yields should be at least thirty pounds per acre. The phenol content of this oil may be assumed to be about 70 per cent., almost all of which is thymol. The yield of thymol per acre of horsemint, therefore, should be for the first year a little less than thirteen pounds, and for succeeding years a little less than twenty pounds. As the average price of thymol for a number of years has been about \$2.00 a pound, the gross returns per acre from a horsemint plantation are estimated in the bulletin already mentioned at about \$25.72 for the first year and \$38.58 for each succeeding year.

It is more difficult to estimate with accuracy the cost of producing the thymol. In the opinion of the investigators it is doubtful whether the profits from the industry will be sufficient to warrant

anyone in engaging in it unless the horsemint is grown in connection with other oil-yielding plants for which a distilling apparatus is required. In that event, of course, the entire cost of the distilling plant cannot be charged against the thymol industry alone. For this reason, in the estimates of cost of production published in Bulletin 372, such items as land rent, taxes, depreciation, upkeep, and interest on the distilling plant have not been included. Excluding these items it is believed that thymol can be produced at an approximate cost of \$23.00 per acre the first year and \$19.00 per acre thereafter. This figure includes the growing of the plants, fertilizer, cultivation, harvesting and distilling. A plantation of horsemint will not have to be replanted oftener than once in five years, and under average conditions may continue to give a good yield for a still longer time. After the first year a material reduction can be made in the cost of fertilizers if the distilled herb is returned to the soil. These facts account for the reduction in the cost of production after the first year.

Horsemint seed matures in the southeastern states during August and September, and is ready to be gathered as soon as the calyx is dry and has assumed a dark-brown color. The entire heads can readily be stripped off by hand. They should be spread out on a cloth or tight floor and thoroughly dried. The seed can then be removed by rubbing through a sieve, common window screening being about the right size. Where the winters are free from severe frost and snow, as in the extreme southeastern states, the best results can be secured by planting the seed about the first of September in a carefully prepared seed bed. About two months after sowing, when the plants are about two inches high, they are ready for transplanting to the fields. Fuller information in regard to methods of cultivation, harvesting and distilling are contained in Bulletin 372.



Cholera Infantum versus Arsenical Poisoning from Insecticides —Which?

The similarity in symptoms makes it important to differentiate carefully in making your diagnosis

The unrestricted sale of arsenical fly poisons is pernicious and dangerous, and should be abolished by law.

Such products are all the more a menace in that the poisonous solutions are sweetened, making the dangerous potion enticing to children.

In the past physicians have denounced the poisonous phosphorous match, and this public danger has been eliminated. The baneful arsenical fly draughts merit like condemnation.

Michigan has passed a law specifically to regulate the sale of poisonous fly eradicators, and other states will undoubtedly follow. Because of its interest in public welfare, the medical profession supports this movement and favors the stringent restriction of the manufacture and sale of these noxious products.

The Housefly is a Typhoid Carrier
and filth distributor—always "fresh from the foulest filth of every pestilential kind." There is a reliable means of destroying this pest—use

TANGLEFOOT

Absolutely Non-Poisonous
Perfectly Clean—Easily Applied
Always Effective

For over 30 years TANGLEFOOT has merited its reputation as the sure, clean and safe fly destroyer. Our sales exceed 300 million sheets yearly. *Made only by*

The O. & W. Thum Co.
Grand Rapids, Mich.



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JUNE, 1916.

No. 11

*DISPOSAL OF MUNICIPAL REFUSE.

In writing this paper, not having had personal opportunity to make a study of the various means and ways of collection of garbage and other waste and its disposal, except in our City, it has been necessary for me to secure from the study of others what facts they have found worth consideration, and therefore I shall quote from time to time from men who have made the subject a study and are men of authority on this branch of municipal sanitation.

I shall not begin my paper with local conditions as they are in our city today for I feel that we who are citizens fully appreciate what we are in many parts of the City compelled to contend with, but shall discuss local conditions before closing my paper with some suggestions of possible improvement on the present system of collection and disposal.

Civilization costs—the higher the civilization, the greater the cost. One item in the cost of civilization is the price we must pay for cleanliness and cleanliness means health and life. Without cleanliness there could be no life. Cleanliness is an inherent instinct in man and beast, from the lowest to the highest degree of development.

Watch a barnacle in a pool of water at low tide. The creature occupies a pearly house with a trap door in the roof. The double door opens and a tiny hand is thrust out; the fingers of the hand close over food particles that are invisible to the human eye. The hand is withdrawn and the door is closed. When this low form of

* Read before the Cumberland County Medical Association, April 14, 1916.

life is through feeding, the door opens again, and this time the hand throws out the waste. The creature obeys the ancient primal instinct to be clean.

And the history of primeval man shows that the instinct of cleanliness was heeded, and the laws of health were observed then, just as the people of today are trying to heed and observe.

There is one great difference noticeable between the past and the present—A difference that is growing larger and larger as time passes. And that difference is civilization.

In the past the inhabitants of the world formed themselves into nomadic tribes and lived in the open. Their roving disposition may have been influenced by this instinct of cleanliness and when the soil became polluted and odors of refuse became offensive, it was the logical thing for them to do to seek another abiding place.

Fixed habitations started the civilization we are enjoying today, and while it affords us the luxuries, and possibilities of mental development that is ours, it has brought about many new problems.

One of these problems is how to collect and dispose of garbage and refuse, or waste of different kinds.

The question is one so intimately connected with health work, that it should be controlled by the Board of Health, and is thus controlled in many cities.

It is a noteworthy fact that in most cities in this country the work has not progressed beyond village methods; it is done in a way that is a menace to health, offensive and expensive. Here and there, it is true, some particular portion of the work may be well done, but for the most part, it is done in a primitive way; and the one idea of economy so far developed seems to consist in the dangerous practice of not doing the work, or else doing it indifferently.

The people of a city cannot expect continued good health conditions, unless their city is kept clean, and cleanliness implies the removal not only of garbage, but of every kind of waste.

The matter presents two quite different problems:—

1. The collection of the waste.
2. The disposal of it.

The most reliable figures indicate that a city is expected to care for from 360 to 600 pounds of waste per capita per annum. A division of this waste into its ordinary classifications would be approximately as follows:—

Garbage	12½ to 15%
Ashes	65 to 76%
Rubbish	8 to 12%

For the collection of waste it would be a reasonable estimate to say that an average of two pounds per capita would have to be cared for daily.

The first thing to be considered in this problem is the ways and means of collecting this waste in a proper sanitary manner and to be disposed of later in some sanitary way. The refuse from our city may be classified under the following headings:—

Rubbish.

Garbage.

Ashes.

In its fight (a more suitable word cannot be found to designate the work) for the prevention of communicable diseases, a city is successful to the extent of its cleanliness, but my idea of cleanliness is not typified by the usual methods of garbage collection. If these collections are to be disposed of by feeding to swine or reduction or other means, which I shall speak of later, there should be a separate collection of garbage alone and it should be done as frequently as the funds of the city permit. In the summer time it should be done daily or at least every other day.

Collections should be made in wooden carts, metal lined, or metal water tight covered wagons should be used, never overloaded so that the covers will fit down snug. When these are emptied they should be cleansed thoroughly with hot water or steam before loading again. Open and leaky carts and wagons for the collection of this waste are still very much in evidence right here in our own city and when they are loaded with garbage and hauled to the dump or place of disposal they leave a trail of their contents all along the street.

Under the method of collection now in vogue a garbage collector requires from three to five minutes to remove garbage from house to wagon, travels from two and a half to three miles an hour and visits from forty to sixty houses in a day of eight hours.

The garbage can continues to be a menace to public health just as much as the garbage wagon. The whole system, it seems, is unsanitary and unsatisfactory. We need something that will do the work better, that will be safer, and that will be more economical.

The condition of the garbage can in our city is no better than in other cities and I feel that it should be given a passing notice.

If it were required that the householder or owner see that each family is supplied with the regular size can, all of the same type, it would give another plan of collection in that each can could be removed intact and put on the wagon with others, each time replacing an empty, clean can in the place of the full can, the full one to be

carried to the place of disposal and afterwards cleansed and sterilized before being returned again. This may not be a perfect plan, yet it embodies more desirable features than the present system envolves where all kinds and sizes of cans, boxes, barrels, tubs, trunks, and what not are used. It effectually removes many dangers surrounding the garbage can.

In a book written by William H. Dawson, an Englishman, who has made a study of municipal life in Germany, he states that the plan I suggest above, regarding each family being supplied with a garbage container, that the general rule in all cities is that each house shall be supplied with a proper container for garbage which is removed by the municipal government employees or by contractors who dispose of it in various ways. Each municipality reimburses itself by charging the house owner a fee based upon the rental value of the property which is fixed annually and is now about one per cent.

From personal study of the conditions in our City I believe that some system of collection should be worked out, possibly along the following plan: Have located at some central point a depot at which the house to house collection wagons could unload into a large truck which would be able to carry a much larger load to the point of final disposal, wherever that may be, which would relieve the time taken up by each wagon hauling full loads to the disposal plant and would give us that much more time to actually attend to the house collection. At the receiving depot a large hopper or container with trap door could be built which the truck or trucks could back up to and be loaded from. This hopper could be constructed of concrete and connected with the sewer so that from time to time the same could be flushed out and kept clean.

Upon final disposition of the garbage depends the manner and frequency of collection. Methods of disposal may be classified under the following headings:—

1. Dumping
 - (a) On land which may be either covered by ashes or ploughed under with street sweepings and night soil.
 - (b) Into large bodies of water.
2. Feeding to swine where collections should be made daily and fed fresh. Before feeding, the garbage should be sorted and the portion that the pigs will not eat should be destroyed by incineration or ploughed under.
3. Reduction to be used for garbage only.
4. Incineration for use of all forms of refuse.

5. Destroyers which are also used for all kinds of refuse but are built under different construction than the incinerators.

Tipping into dumps or pits is one of the least desirable of methods. In the first place the ground on which the dumping is made must of necessity be far removed and the hauling is expensive, it being estimated that at the present time in the United States it costs forty cents to move a ton of garbage one mile when the work is done with a one horse cart and a man. It will thus be seen that the cartage is one of the large items of expense in garbage handling. This method has only one point in its favor and that is that it permits the saving effected by hauling mixed garbage, rubbish and ashes.

Mr. Hiram Phillips, consulting engineer of the City of St. Louis, Missouri, speaks of dumping into water as follows:—

Dumping into water whether into flowing streams or lakes or out to sea requires that the body of water shall be large enough in volume to scatter those portions which float, and deep enough to permit the heavier portions to sink without interfering with channels. Unfortunately the cleanest portions sink and the foulest float and this method, in his opinion, would not be tolerated by the United States Government if attempted unless carried out beyond the three mile limit which would mean an expensive process.

FEEDING TO SWINE.

This can be applied only to garbage and has been resorted to with considerable success. It requires frequent and prompt collections and is often combined with plowing into the soil. The hogs should not be kept in large numbers in one place on account of being adjudged a nuisance and the great danger from communicable diseases. Hogs being fed on garbage are supposed to be more subject to cholera than corn or otherwise fed hogs; but a cholera serum is now being prepared that is claimed to be a specific against this disease. Feeding garbage to hogs, if in small lots, with cleanly surroundings need not be unsanitary and from a money making standpoint may be very attractive. It has been proven by good authorities that hogs fed on fresh garbage make wholesome food products provided that from one to two months before killing their diet is changed from garbage to grain.

Denver, Colorado, has an agreement with an association known as the "Hog Growers" Association, who collect all garbage, remove it, and feed it to swine. No large numbers are kept in one place; the pens are located at the far outskirts of the City and are under the inspection and regulation of the Denver Health Officers, and, so

far as published, complaints from residents are few due to the cheerful compliance with the rules of the Health Officers. Mr. Phillips states that he would judge the business must have a successful side as a commercial proposition.

St. Louis, Missouri, about ten years ago, as an emergency measure, rented an island of about 350 acres (which they have since bought) twenty miles down the Mississippi River, and transported its garbage there and spread it upon the ground, turned hogs upon it and after a certain portion had been consumed, the remainder was plowed under. The privilege to turn the hogs upon it was obtained by a private individual; the financial side of it has never been made public.

REDUCTION.

Mr. Phillips speaks of the reduction plan as follows:—

In the Reduction process only garbage is treated. With it should not be mixed any other refuse. Oil, grease and tankage, are the products; the principal constituents being grease and bones. However, in all garbage there are large quantities of vegetable matter carrying an excess of water that cannot be reduced at a profit. This is especially true in the summer when melon rinds, shucks, green corn cobs, et cetera, comprise the bulk of the garbage. Much of the liquid grease, during the summer months, is dumped while warm into the sewers.

Judging from the representative Patented Reduction Processes coming under his observation, it must be very profitable. Private companies seem to have made it profitable in the larger cities; however, very few of the smaller cities have been successful with publicly-owned plants.

One of the greatest objections to the reduction plant being located within the city limits, is the objectionable odor emanating therefrom at times, which is almost unbearable. Many patented processes claim an odorless plant; but Mr. Phillips states that he has never encountered one in visiting practically all the largest plants in the United States and Canada. There are degrees of odor, varying at times with the skill of operation and with the climatic conditions, but odorless, never.

Other authorities speak as follows:—As a rule the reduction plant, especially in smaller cities, has not been a success, some authorities stating that they do not believe that a plant of this kind has ever been built that was not run at a financial loss. At the same time, a survey of the national resources in fertilizing material made at Washington would go to show that this waste material contains

nitrogen, phosphoric acid, and potash, which are recognized as essential to the production of large crops.

The report goes on to say that it seems, therefore, that this garbage can be disposed of most advantageously by returning it to the soil in the form of fertilizer. They have figured out the constituents and figure that a ton of raw garbage is valued at from Three to Five Dollars for the grease, and valued Two Dollars for the fertilizing ingredients. As is seen the grease is the most valuable and the securing of this from the garbage may be done in three different ways. Garbage is cooked or steamed and then pressed dry and degreased in gasoline or is dried indirectly in rotary hot air kiln and then degreased in gasoline or it is dried and degreased in the one operation.

Raw garbage contains about 70% water and 3½% of grease with a tankage residue of 25% fertilizer, therefore, four tons of garbage should be made to yield about \$12.00 worth of grease and \$10.00 worth of fertilizer. This figures out well from a chemical standpoint but it must be considered that to secure this grease and fertilizer it is necessary to build suitable plants and to install expensive machinery and that only about one-tenth of the garbage can be thus treated and varies as to composition from one season to the other throughout the year. The offensive odors arising make it a far out plant and the hauling, charge and labor more than use up the value of recovered products unless carried on in large cities.

INCINERATORS.

In incineration it is possible to destroy all refuse; but as far as I can find out no one furnace has ever been devised (although hundreds have been patented) that would successfully reduce all kinds of refuse, in various mixtures, and between extremes of moisture a wide range of combustible matter. It requires a certain number of heat units to destroy refuse; if the refuse contains combustible matter, in such quantities as to destroy all its objectionable, unsanitary elements, then no additional fuel is required. If it does contain an excess of combustible matter, it can be utilized to generate heat or power and be an asset.

Many pattern devices claim great economy in that they are able to furnish steam for power and other purposes, in burning the refuse. Vegetable matter contains from 95 to 97% of moisture, sometimes in the form of ice or snow. This is not an asset to a power producing plant.

Incinerators of the most successful type are so constructed as to free the refuse from the excess moisture without giving off fumes

or objectionable gases, and then reducing solid matter. A furnace has not been designed thus far in which the personal element can be eliminated. With varying degrees of combustible matter and with the varying percentage of moisture, in refuse, there is called for very intelligent stoking, as well as different methods of manipulation and, in addition, furnaces of special design.

Mr. Phillips' experience in connection with garbage incineration, from an economical standpoint and also as being an odorless device, has not been very strongly favorable to existing methods. Want of intelligent firing has often produced odors, and the high temperature necessary to destroy the refuse and the extremes of temperature have made the furnaces themselves shortlived.

Other authorities speak accordingly:—In that incinerators or crematories have been repeatedly tried and have never been satisfactory. The principle under which they work is wrong. They have the advantage over the reduction plant of taking care of the entire waste or rather the combustible part of it but otherwise they offer the same objection and yield no returns except the ashes.

DESTRUCTORS.

The so-called destructors offer more advantages than any other methods. They are not any more expensive to build, operate or maintain than are the incinerators. The difference between them is that while the "destroyer" has a smaller grate surface, it works at a higher temperature, from 1,200 to 2,700 degrees of heat F.; while the incinerators have a large grate surface and a low temperature, and this low temperature causes a distillation of the garbage that is most offensive.

The gases of combustion are consumed by the destructors within the furnace. Consequently there are no odors from plants using such excessive temperatures. This objection removed, it becomes possible to locate these plants at almost any convenient place within the city and save much of the hauling charges.

In a pamphlet compiled by the Public Health Department, Local Government Board of London, England, they sum up the disposal of refuse as follows:—

The satisfactory disposal of refuse creates very difficult problems, especially in the larger districts. From the point of view of the public health the most satisfactory solution is the destroyer; but, though destructors are being established to an increasing extent in the larger urban districts, there are still very few that dispose of all their refuse by this means. Of the 221 towns which

possessed destructors at the beginning of 1914, 72 are among the 96 greater towns, 73 are among the 142 smaller towns, 71 belonging to the class with a population between 5,000 and 20,000 while there are only five in urban districts with under 5,000 people. The destructor is chiefly for populous districts.

Other methods are generally preferred to destructors on the ground of expense and the destructor has until recent time been rather a luxury of large and rich districts. On the question of comparative expense they give some of the following particulars:—

In 96 of the greater towns, including London, the destructors are fitted with boilers for generating steam which is used to make electricity or to pump sewerage or for other machinery. Under the cities of the size compared to Portland the steam is put to the following uses: steam is used to generate electricity which is supplied to abattoirs and schools, steam supplies power to engines at electricity works, steam is used for pumping sewerage, it is used to drive machinery connected with various municipal plants and various other uses to which steam may be put, thus helping to eliminate the expense. On the ground of public health there is no doubt that a destructor is to be preferred to other methods of disposal in thickly populated districts, even though it is itself occasionally a cause of complaint.

They also recommend in the collection of refuse that each household be supplied with properly covered cans to be removed at regular intervals in a properly covered cart to the place of disposal.

I have already intimated that the attempt of reclaiming the fat from garbage is too expensive for the product, nevertheless, there is a utilizable value in garbage that yields a profit, in the heat that it is made to produce during its destruction. For, with rare exceptions, after the required heat has first been developed, this heat is sustained for weeks without any other fuel than the garbage and refuse it is consumed. And this heat is utilized to create steam, power for generating electricity, for light or power purposes, for pumping water, or other purposes. Other ways of utilizing garbage have been suggested and tried, at least in experimental ways. The late George Westinghouse only a few years ago gave the results of experiments he made to convert into fuel gas and pronounced the plant practical. Perhaps it will give a clearer idea of the heat producing values of garbage to compare it with coal.

The semi-bituminous coal, mined in Illinois and Indiana, produces about 14,700 heat units per pound as compared with about 1,100 units of heat produced from a pound of city garbage and

refuse mixed. Hence the value of garbage as a fuel is about seventy per cent. that of our coal.

I have already stated that ashes compose about $\frac{5}{8}$ of the city's waste. Notwithstanding the fact that in only a few places is there value recognized, they have a value well worth utilizing. The analysis of the refuse of coal shows the following composition:

Fine ash 40 to 50 per cent.

Coarse ash and slate 15 per cent.

Clinkers and partly burned coal 15 to 40 per cent.

Unburned coal 20 per cent.

The separating of the unburned and partly burned coal from the rest of the ash would be very profitable indeed. It cannot be very well done by each individual householder, for the amount would be too small, but in a town of fifty or sixty thousand people between eight and ten tons of coal can be recovered daily from the ashes, and by so doing the added value to the residue or fine ash would probably be sufficient to pay for the entire expense for recovery.

The fine ash is used in making brick and mortar, and finds a ready sale. The ashes from the garbage are used by manufacturers of fertilizer and are worth from a dollar and a half to three dollars a ton.

That portion of the city's waste called rubbish is the most valuable comparatively although it forms a smaller portion of it. By weight, from sixty to seventy-five per cent. of it is paper, the rest includes rags, twine, rubbers, tin cans, bottles, glass, leather, etc. While all of these, except the metal and glass, have a fuel value, the market value is so much greater than the fuel value that the sorting and selling of these articles is more profitable than burning them. It is interesting to know that waste is divided into seven grades and worth from 25 to 80 cents per 100 pounds; while rags are divided into six grades and sell from 30 to 85 cents a hundred, and twine, two grades, sells at 35 to 50 cents a hundred.

Referring again to the scavaging and urban districts by the Public Health Department of London under the heading of sorting refuse they speak as follows:—

In many districts old iron, tin cans, card board, glass, etc., recovered by sorting the refuse, are sold. The following cases illustrate the arrangements made in different districts. At Leicester, rags, bones, iron, glass, etc., are sorted out and sold, half the proceeds being divided among the working men, the other half credited to the City Government. In Manchester bottles are collected and

the local Bottle Exchange Company pay an annual sum for such collection. In Reading, a contractor pays the council a fixed sum for the privilege of sorting over the refuse. In Burnley, the city received one pound per ton for old tin and sundry scraps. In other cities the waste paper is collected from the dump, bailed and shipped away. In this way the city receives in return some value for waste material. Perhaps it may have been noted by some of you in the papers the latter part of March the statement made by William Cox Redfield, Secretary of the Department of Commerce, Washington, D. C., that in view of the reported serious shortage of raw material for the manufacture of paper, including rags and old papers, he had sent a communication to the Chambers of Commerce and the Boards of Trade in larger cities in which he asks that the local organizations urge individuals and firms to save refuse, rags and paper. It is pointed out that something like 15,000 tons of different paper and paper board are manufactured every day in the United States and a large portion of this after it has served its purpose could be used over again in some class of paper. A large part of it, however, is burned or otherwise destroyed. A little attention, the notice states, to the saving of rags and old paper will mean a genuine relief to our paper industry and a diminishing drain upon our source of supply for new material.

Having fairly thoroughly covered the subject under consideration I would like to make at least some suggestions of improvement in our local conditions.

At the present time the collection of garbage in our City is under the control of the Overseers of the Poor Department who make collections about twice a week in some sections of the City. These collections are not done systematically for various reasons, some of which are as follows:—the lack of number of teams, the lack of proper drivers in some cases, and the far hauling of garbage from the city to the farm. This is due on the greater part to the small appropriation given to this department for this work. As I have stated in my paper the City of Portland does not differ from many other cities in that there is no ordinance covering the size or kind of container for garbage. This means that anything from a proper galvanized iron covered can to an old trunk, tub or barrel are used as a receptacle for household waste. From my personal experience I feel that some system as is carried out in Germany wherein each household shall be required to have proper containers of stated size and shape according to the occupants of the house, same to be furnished by the city at wholesale cost and these cans to be removed and clean cans be replaced each time,

the city selling to the householder cans at wholesale price or at least a proper can or container be furnished each house and the collections made at least every day or two.

The disposal of the garbage could, I personally believe, be carried out as it is at the present time with a profit to the City if properly conducted; that is, feeding to swine if properly cared for. I would suggest that instead of the hauling being made from the City to the farm direct, that the collection teams should haul their loads to one central point, where, as has been suggested, a concrete hopper may be constructed which the cart or wagon may drive onto and unload. The city then having one or two large motor trucks would be able to carry much larger loads and make the trips to and from the farm in much less time than a pair of horses could. This, I believe, could be done with a reasonable outlay of money and would pay for itself in the comforts our citizens would derive from a better collection of garbage.

Next to this, hauling out to sea in scows which would cost anywhere from Fifteen to Twenty Dollars a day for a tug to tow them out to sea and an outlay of a considerable sum for the scows themselves, and I fear that sooner or later the City would find themselves liable to suit for polluting the beaches of our summer resorts.

Building a reduction plant would have to be a three story construction with cement basement. This construction would mean a minimum of power for elevating, as the raw product would be handled on the top story. The other floors would be used for pressing and extraction of grease, etc. The estimate of a plant of this kind for a city the size of Portland, I take the statement of one who has made it a study, would cost in the neighborhood of \$125,000. He speaks of an incinerator plant as follows:

This would not necessarily be an expense of construction but on the other hand, there is no income from it except the ash. He is of the opinion that the disposal of garbage is to be an expense in any way and that it could be dumped from scows into the sea more cheaply.

It would seem from what study I have made of the subject that our City would be benefitted by a better collection and disposal in one of three ways; namely, feeding to swine, which at the present time seems to be the most practical way if properly cared for; dumping out to sea, or by building a destructor plant. The last suggestion, I think, would be the most satisfactory and sanitary solution of the problem for our City. At any rate, I, also, personally feel that there is a great waste going on every day at our city dumps

from which the city would be able to recover, if properly sorted, a fairly good revenue. I also feel that it would be not only a benefit to our City but a thing that would bring good returns if the City Government would have a capable person from the Russell Sage Foundation who under some of their departments would be able to send a man here and give us a full survey of our City.

*THE ALLEN TREATMENT OF DIABETES.

By HAROLD V. BICKMORE, M. D.

The so-called Allen treatment of diabetes is the treatment described and recommended by Dr. Frederick M. Allen of the Rockefeller Institute for Medical Research. In brief, this treatment consists of fasting the patient till glycosuria ceases, then the determination of his tolerance for carbohydrate, protein and fat, taking care to keep him permanently below his former weight.

The advantage of keeping the urine sugar-free has been universally recognized, but all have conceded that this was impossible without danger from acidosis and inanition. Fasting and a low diet had been known before, but Allen should have the credit, first of proving that diabetic dogs could be rendered sugar-free by prolonged fasting, and secondly, of having the courage to apply this principle to human diabetes.

The best established and most generally accepted theory is that diabetes results from a deficiency of the internal secretion of the pancreas and as a result, there is a loss of power to utilize sugar. Removal of portions of the dog's pancreas produces a lowering of the sugar tolerance. Removal of nine-tenths of the gland results in severe diabetes, but when the remnant is larger milder types result. The course is chronic, extending over months and the end fatal. In the milder cases the measures now used in human diabetes, restriction of diet and fasting, if necessary, suffice to keep the animals sugar-free and in good condition indefinitely. In a more severe type these measures do not suffice and the animal quickly passes into a hopeless condition unless he is subjected to a longer initial

*Read before the Portland Medical Club, January 6, 1916.

fast and a subsequent diet, such as to keep the animal at a low level of weight and metabolism. Glycosuria will return if weight and metabolism increase. If this is prevented, the animal remains lively and strong, although thin. The Islands of Langerhans show progressive, degenerative changes, which are known to be characteristic and secondary to the diabetes, and they finally disappear. In man, these changes may be difficult to find, even after the longest and severest cases, and it is not known whether they are primary or secondary. It seems as though that a considerable functional factor is present; that we are never dealing entirely with the destruction of tissue, which cannot be replaced, but always with a certain element of disturbed function, that can be broken down by overstrain or strengthened by rest. If this conception is true, and if the patient is obedient, he can be kept from going down-hill by preventing him from overtaxing his weakened function.

The first step, then, in this treatment, is to have the patient go to bed and fast till glycosuria ceases, and then for about twenty-four hours longer. The duration of the fast may be as long as eight or ten days. None of Joslin's patients required more than five, while many became sugar-free after three or four meals. Four days have been the limit at the Massachusetts General Hospital. Dangerously weak and emaciated patients have borne the fasting with apparent benefit, giving the impression that they had been suffering more from intoxication than from lack of nutrition. Alcohol is valuable during fasting, as a food which does not produce glycosuria. It is best given in small doses every two or three hours. Most cases do not require any alcohol, for the starvation does not produce coma,—an important point which Dr. Allen has brought out in his treatment. Sodium bicarbonate may be given every three hours, if there is much evidence of acidosis. Any amount of water is allowed; also one cup of tea or coffee daily. If undesirable symptoms, such as nausea, vomiting, extreme prostration, arise in the course of fasting, the patient should be given a restricted diet for about a week and then the fasting resumed. A few patients having a very severe type of the disease, are less vigorous for some weeks after the fasting period is over than when it began, but strength is gained in most cases, though not all.

When the patient has been sugar-free for twenty-four hours, the next step is to begin feeding him cautiously and to determine his tolerance for carbohydrate, protein and fat. Allen does not govern the diet by any caloric standard, but by the amount of each food that can be given in each individual case, while keeping the urine clear. At the Massachusetts General Hospital, more atten-

tion is paid to the number of calories taken daily. Allen and Joslin agree that if glycosuria and acidosis are allowed to return through improper diet, after the strength is decreased by long fasting, the last state of that man may be worse than the first. Each one is taught to examine his own urine. An examination is made daily, excepting in the milder cases which have been under treatment for some time,—once a week is sufficient for them. Any trace of glycosuria is a signal for a fast-day, with or without alcohol. No fast, after the initial one need be longer than one day. Vegetables with a low percentage of carbohydrate are usually given first, and the amount and percentage are increased slowly until sugar appears which is checked by fasting. In severe cases, where the tolerance is too low even to stand a low percentage of carbohydrate, thrice boiled vegetables with changes of water can be taken without glycouria.

The protein tolerance is next determined, starting with one or two eggs daily, gradually adding more eggs and meat. A moderate amount of fat in the form of butter can be given with the carbohydrate and protein. Fat, alone, will not cause glycosuria, but when added in excess to a fixed diet, it will bring back all the patient's symptoms probably by its stimulating effect upon metabolism. Not more than two hundred grams of fat should be given daily.

After a fast-day, the same diet is usually resumed, except that the carbohydrate should not exceed half the former tolerance until the urine has been sugar-free for two weeks. In the mild cases, the diet ought to be restricted one day a week, while in the more severe cases, there should be routine fast-days. It is important not to increase the carbohydrate and protein at the same time, for it is necessary to know which element of food is causing the trouble. The protein intake can be increased more rapidly, but an excess of it is an important cause of glycosuria. When the patient is taking a fair diet and is doing well, it is best not to try to increase the quantity. The after-treatment, of course, is just as important as the initial treatment. The patient has to be instructed carefully in the simple means of controlling his own condition, through his diet, body-weight and testing his urine.

The immediate results so far appear uniformly beneficial. Regarding the remote results and ultimate prognosis, longer experience must decide. Allen has reported forty-four cases, chosen as the most severe, from a large list of applicants to the Rockefeller Hospital. None of these who followed the treatment have died. The selection was not made with any regard to age, class or education and they were scattered around in the open wards where they

could have stolen food if they so desired. One case of incipient gangrene and one dangerous carbuncle cleared up rapidly under fasting. Since August, 1914, forty-eight cases have been treated by Joslin of Boston without a single death. Successful operations of various kinds, including one Caesarian section, have been performed on several of these. He feels that coma is an avoidable accident. The treatment has been used at the Massachusetts General Hospital for several months with great success. In every case the patient has become sugar-free and has remained so on a reasonable diet which enabled him to hold his weight. No sign of coma has been seen, and there was nothing constant in the appearance or disappearance of acetone and diacetic acid while fasting.

Up to the present time, then, the results of the Allen treatment seem to be more favorable than under former methods. The relative simplicity of the treatment and the fact that it stops glycosuria without any risk of acidosis should make it available for a large number of practitioners. Whatever may be the ultimate outcome, patients should do better when glycosuria and acidosis are removed than when they are allowed to continue.

DO YOU KNOW THAT

Dirty hands spread much disease?

A high bred dog has a right to have his birth registered—so has a baby?

The U. S. Public Health Service guards American ports to exclude foreign disease?

Health is a credit with the bank of nature?

A clean garbage can is a good example to the family?

Filth breeds flies—flies carry fever?

Slouchy postures menace health?

Health brings happiness—sickness sorrow?

Bulletin
No. 6

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Editorial Comment.***Health Insurance; Its Relation to the Public Health.***

Twenty-five out of every 1,000 employees in American industries, according to recent statistics, are constantly incapacitated by sickness, the average worker losing approximately nine days each year on this account. This "non-effective rate" for the great army of industrial workers in the United States barely suggests the total money loss to employers and employees. The lessened efficiency, the effects of reduced earnings in times of sickness, as well as the cost of medical attention, and the economic loss from deaths, swell the cost to industry and to the nation to almost incalculable figures.

That much of this loss is nothing less than preventable waste and that this waste can be largely reduced by a properly conducted system of governmental health insurance for wage workers are conclusions set forth in Public Health Bulletin No. 76, containing the results of a study of "Health Insurance; Its Relation to the Public Health," just issued by the United States Public Health Service.

The preventive value of health insurance is given especial emphasis in this study. "Any system of health insurance for the United States or any state should at its inception have prevention of sickness as one of its fundamental purposes," says the bulletin. "This country should profit by the experience of European countries, where prevention is being recognized as the central idea necessary to health insurance if health insurance is to attain its greatest success in improving the health and efficiency of the industrial population."

Such a system, it is pointed out in the bulletin, would

1. Provide cash benefits and medical service for all wage earners in times of sickness at much less cost than is now possible. Adequate medical relief would thus be placed within the reach of even the lowest paid workers who are most subject to ill health.
2. Distribute the cost among employers, employees, and the public as the groups responsible for disease-causing conditions and afford these groups a definite financial incentive for removing these conditions. This can be done by means of small weekly payments from employees, supplemented by proportionate contributions from employers and government at a rate reducible in proportion to the reduction of sickness.
3. Become an effective health measure by linking the co-operative efforts of the three responsible groups with the work of national, state and local health agencies, and by utilizing these agencies in the administration of the health insurance system.
4. Afford a better basis for the coöperation of the medical profession with public health agencies.
5. Eliminate the elements of paternalism and charity-giving by making employees and the public, as well as employers, joint agents in the control of this fund.

"A governmental system of health insurance," concludes the study, "can be adapted to American conditions, and when adapted will prove to be a health measure of extraordinary value."

Abstracts from Current Literature.

Medical Cure of Gastric and Duodenal Ulcer by an Efficient Removal of Gastric Juice Corrosion.

By B. W. Sippy, Chicago, Ill., Journal A. M. A., May 15, 1915.

Any practical medical method for the successful treatment of peptic ulcer certainly deserves our consideration. Sippy, by his method, claims to cure not only peptic ulcer, but ulcer complicated by gastric stasis.

The essentials of this method are: (1) the accurate neutralization of the free hydrochloric acid by the use of (a) frequent feedings and (b) by sufficiently large doses of alkalies; (2) by the removal (aspiration) of any night hypersecretion.

The feedings are given hourly from 7.00 A. M. to 7.00 P. M. The antacid consists of 10 grains each of heavy calcined magnesia and soda bicarbonate and is given with each feeding, alternating with a powder of bismuth subcarbonate, grains 10, and soda bicarbonate, grains 20 to 30, midway between feedings. The former alkaline powder is also given every half hour after last feeding until 10.00 P. M., or six doses. In cases of stasis or hypersecretion the gastric contents are entirely removed at 10.30 P. M. The degree of acidity of the gastric contents should be determined occasionally in order that the proper dosage of the antacid may be used. The average length of time that a patient should be under the accurate control and observation of the physician is about four weeks.

Such a line of treatment could hardly be carried out except in a hospital, and by a physician who is capable of making chemical analysis of the gastric juice. The large doses of alkalies used cause diarrhoea, as the author admits, and this condition limits the amount of magnesia that may be used. According to the article I conclude that he uses twelve 10-grain doses of magnesia between 7.00 A. M. and 7.00 P. M., and then six more doses from 7.00 to 10.00 P. M., or a total of eighteen 10-grain doses, or 180 grains, in addition to the large amount of soda bicarbonate, several drams. It is well known that these large amounts of antacids are often required to neutralize the degrees of acidity frequently encountered, but their use has been found generally impractical; diarrhoea almost invariably restricts such usage.

The services of both a day and night nurse would be required, and the former would be actively occupied from 7.00 A. M. to 7.00

P. M., in administering feedings and alkalies, to say nothing of the other attentions to the patient.

Sippy states he has employed this method for twelve years, that he has constantly twenty-five to thirty or more patients under treatment, and that he accomplished astonishing results.

The impracticability of this treatment for the general practitioner seems apparent.

R. F. C.

Carbohydrate Indigestion.

By Wilder Tileston, New Haven, Conn., Journal A. M. A., Dec. 25, 1915.

For fermentation to take place (in the alimentary canal) three factors are necessary: (1) the presence of suitable organisms; (2) a proper medium for them to work on; (3) more or less stagnation of the contents of the stomach or intestine.

Such being the case, the removal of any one of these factors should effect a cure of excessive gastric or intestinal fermentation, and in my experience it does. Thus in excessive intestinal fermentation regulation of the action of the bowels nearly always causes the disappearance of excessive gas. This is a simple truth not duly appreciated. Again, excessive fermentation *does not occur* in the stomach unless there is stagnation of the gastric contents, not always then, it is usually due to pyloric obstruction most often caused by cancer or ulcer, so that excessive formation of gas within the stomach is of comparatively rare occurrence.

Dr. Tileston states: "There are distinct limits to the tolerance for carbohydrates—proteins and fats. These limits vary widely in different persons and in the same person at different times. [With this statement I quite agree.] Examples: A person may eat one raw apple and no discomfort arise therefrom, but should he eat three apples there is liable to be excessive intestinal flatulence. On the other hand, some person may be able to eat three apples without excessive intestinal fermentation arising."

I also agree with the following statement. He says: "The drug treatment of fermentation will accomplish little by itself. When combined with regulation of the diet it sometimes seems to be of benefit, but as a rule it is superfluous. Belching can be facilitated by the administration of the ethereal oils, such as peppermint or menthol."

In my experience belching is not to be facilitated, but the cause of it removed, as always may be done if the gastric condition is a curable one. The swallowing of air is by far the most common source of gas

or air belched. The article imparts no new knowledge to the subject, but it does call attention to certain facts which should be better recognized by the profession.

R. F. C.

The Surgical Anatomy of the So-Called Capsula of the Faucial Tonsils.*

By Dr. G. Hudson Makuen, Philadelphia, Pa.

After briefly reviewing the origin of the capsule and its probable function, he quotes Dr. D. R. Patterson, special throat surgeon to the King Edward VII Hospital, Cardiff, who had made a careful study of the anatomy of the faecal region in both man and animal, who says that the so-called capsule of the tonsil is merely a portion of the intrapharyngeal fascia or aponeurosis, having its upper attachment at the base of the skull and extending down into the region of the esophagus. This has been confirmed by both English and French writers.

Dr. Makuen divides tonsillectomies into two classifications, namely, intracapsular and extracapsular. The intracapsular tonsillectomy contemplates the removal of the tonsil tissue leaving the greater part of the tonsilar capsule; on the other hand, the extracapsular tonsillectomy refers to the complete removal of the tonsil in the capsule. Dr. Makuen takes his stand that the extracapsular operation leaves a wide base which must fill in with scar tissue of a non-secreting type and would tend to the formation of adhesions on the one hand and the so-called producing of a dry throat on the other.

The intracapsular operation, as advocated by Dr. Makuen, aims to completely remove all tonsillar tissue and at the same time leave the capsule as a lining over the base of the tonsil, and he claims that by this method he secures a more rapid healing process, avoiding cicatricial contraction and palatal deformities. His method of procedure is the engaging of a Sluder tonsillotome, and then slipping a snare between the Sluder instrument and the base of the tonsil, by gradually tightening the wire, cuts the base of the tonsil, leaving sufficient of the capsule to serve as a covering for the base.

SUMMARY AND CONCLUSIONS.

The so-called capsule of the faecal tonsil is not a capsule at all, in a so-called strict sense of the term, and it consists, in part, at least, of that portion of the intrapharyngeal aponeurosis in a recess of which the tonsil attaches itself in the course of its development.

The intrapharyngeal aponeurosis is a broad membrane having

its attachment above to the base of the skull, and extending downward it not only separates the tonsil and the palatal pillars from the superior constrictor muscle and other important tissues in the cervical region, but folds of this membrane protrude themselves between the tonsil and the pillars of the palate. The anterior fold, when it protrudes itself well in front of and below the tonsil, constitutes what is known as the plica triangularis or plica tonsillaris.

In the course of its development in embryo and during infancy, the tonsil appears to appropriate a portion of the connective and musculo-fibrous tissue with which it is in juxtaposition, and finally in adult life it becomes firmly attached to this membrane, to which has been given the name intrapharyngeal aponeurosis, and a section of which seems to constitute the so-called capsule of the tonsil.

A complete extracapsular tonsillectomy, therefore, must leave a window resection of the intrapharyngeal aponeurosis, not only exposing the palatal pillars and the superior constrictor muscle, but opening up avenues of infection in the deeper regions of the neck.

A more desirable operation, which may be called an intracapsular tonsillectomy, or perhaps better still, an intercapsular tonsillectomy, is one in which the tonsil is removed with only the thin innermost layer of the capsule, the major portion of it being left in the pharynx as a complete lining for the fossa, where it serves as a strong wall of defense against infection in this region. This intra or intercapsular tonsillectomy may be done easily and accurately with an ordinary snare in connection with the original Sluder instrument.

1627 Walnut Street.

The Cause of Gastric Ulcer.

By W. E. Gurge, Ph. D., and E. L. Burge, A. M., Nebana, Ill., Journal A. M. A., April 1 1916.

Basing their experiments on the theory that "decreased resistance of limited areas of the gastric wall permits digestion of the same by gastric juice," these authors arrive at certain conclusions. It is well recognized that the resistance to the action of the gastric juice of portions of the gastric wall is decreased by cutting off the blood supply as by an embolus or by the ligation of an artery, and the same result seems to follow in some cases of general anemia. The decreased resistance has been attributed to lack of nutrition. The authors assert that when the blood supply to a portion of the mucosa is cut off, among other things, the part is deprived of oxygen and for that reason the oxidative processes are decreased.

By stretching a piece of the gastric mucosa of a dog over the end of a cylinder containing gastric juice, and generating oxygen therein for six hours, the area of mucosa subjected to this test showed *no* digestion of the mucosa. The same test carried out, *without* the generation of oxygen, resulted in complete perforation of the mucosa in sixty-five minutes.

It is chiefly from these tests that they arrive at the following conclusion: The decreased resistance of a circumscribed area of the stomach to the digestive action of gastric juice is due to a decrease in the oxidative processes of the cells of the area. Gastric ulcer is due to the subsequent digestion of the area by pepsin.

R. F. C.

Pharmacologic Superstitions.

By H. C. Wood, Jr., M. D., Phil., Pa., Journal A. M. A., April 8, 1916.

Certain remedies whose reputation was sustained unabated for 2,000 years have been unable to bear the light of modern knowledge.

"Of 624 drugs and preparations deemed by the authors of the first edition of the U. S. Pharmacopeia, 1820, to be those, the utility of which is most fully established, 305 (or 50%) have been already despoiled of their official recognition. Certainly the length of time during which a drug has been employed in medicine furnishes no measure of its usefulness. The author asks: 'Are we to gauge the utility of a therapeutic agent by the clinical results we *think* we see?' Wendell Phillips said, 'You read history not with your eyes but with your prejudices.' Practically all our experience is interpreted through the glasses of our prejudice."

Dr. Wood further asks and answers the question: "If neither antiquity nor clinical results can establish the therapeutic credentials, on what grounds are we to accept therapeutic claims? It seems to me fair to conclude that we are justified in giving credence to claims of therapeutic usefulness when the known action of the drug permits of a plausible explanation of its asserted benefits, not inharmonious with the accepted theories of the disease and supported by a fair amount of bed-side corroboration." The author proceeds to judge certain traditional remedies by this standard.

The first remedy considered is Compound Syrup of Hypophosphites, and he shows (a) that the amount of iron contained in two fluid drachms, the pharmacopeial dose, is equivalent to $1/20$ grain, of quinine $1/8$ grain, and of strychnine $1/75$ grain; (b) that the hypophosphites pass through the body unchanged, that is, they do not

attract oxygen enough to oxidize themselves, and (c) that the theory on which their use based was groundless. These facts are well known to those who have given consideration to this preparation, but unfortunately they are far from common knowledge to the general profession.

Of Lithia, he says: "Neither the theory of the causation of gouty attacks nor the explanation of how lithium would prevent them can be accepted. Nevertheless, regardless of its manifest fallacy, the lithium superstition still survives. As is well known, the natural lithia waters rarely contain more than one part of lithium in a million, and to get five grains of lithium a patient would have to drink about thirty gallons of water."

Of Basham's mixture Dr. Wood says: "Some physicians seem to consider it a sort of specific for Bright's disease. The mixture was based, in part, on the theory that astringents might be absorbed into the blood and thereby diminish the amount of albumen in parenchymatous nephritis, consequently this mixture was devised, containing ferric chlorid and ammonia acetate. According to present pharmacologic and pathologic theories, it seems neither possible nor desirable to diminish albumen in Nephritis."

Dr. Wood comments on other drugs in the same article, which may be read with profit by any physician.

I would strongly recommend all physicians to keep themselves posted on the work being done by the "Council on Pharmacy and Chemistry" as reported weekly in the Journal A. M. A.

R. F. C.

The Appendix—Surgery, Gynecology and Obstetrics.

In this article the functions of the appendix and caecum are discussed from studies made with the fluoroscopic and X-ray diagnoses supplementing physical examinations and surgical findings.

The article is preluded by stating the modern views of such men as Metchinkoff, Barclay, Smith and Sir Arbuthnot Lane, namely, that by reason of our modern regimen of dietary, colonic aid has no longer any physiological necessity to digestion and is therefore a superfluous incumbrance. They say that, according to Keith, we might try to discover a diet which is suited to our present digestive tract instead of acting with Lane in leaving it to surgery to adapt our digestive tract to our present dietary.

While up to date we have only been able to guess at the functions of the great bowel, we do know that the contents of the ileum undergo a marked change upon entering the caecum and it has seemed justifiable

to assume that all the digestive changes of food within the great bowel are due, not to any digestive secretion, but to the action of bacteria which find a permanent abode in the caecum and colon. The proximal colon is also supposed to have the physiological function of the absorption of fluids. By observations through an artificial arm in the caecum and fluoroscopic examinations it is shown that the ileo-caecal valve is a splinter regulating the flow of a constant semi-fluid content from the small intestines and prevents regurgitation of fluid back into the ileum. Its action is automatic like the pylorus and it lets pass about a drachm of serum-fluid faeces at a time, then closes and is resistant to dilatation.

In the caecum the food is pushed onward into the ascending and transverse colon, where it is forced back again into the ileum by what is described as anastaltic movements. These anastaltic movements are described as a series of undulating contractions, beginning at a pulsating tonus ring near the mid-transverse colon and extending backward toward the caecum five or six per minute and normally each series of five to fifteen minutes' duration. The chief factor in the induction of anastalsis is distention of the gut. The presence of gas is a necessary currelative of the process of digestion going on in the caecum.

The authors of this paper claim that the normal appendix, having a highly tonic and contractile musculature and as abundant a blood and nerve supply as the small intestine with definite splineteric control, has a definite function and periodically discharges its contents into the bowel. On March 6, 1915, they had what they call a "field-day clinic" of 27 children who were supposed to be normal and free from abdominal disease. The case histories were taken and physical examinations were made during periods of 4-6 hours after ingestion of barium or bismuth.

They conclude that the appendix is a specialized part of the caecum and believe its relation functionally with the structures of the ileo-caecal region to be of importance. They demonstrated with the fluoroscope within its musculature a definite splineteric and peristaltic function. In the normal appendix faecal material was retailed during quiescence of the caecum from one period of digestion to another and these faecal molds they believe form a culture medium providing automatically fresh bacteria for colonic digestion. In brief, they consider the appendix a normal physiological "culture tube".

They consider that if the appendix is possessed of the specialized function as described that the usual method of its removal is a potential factor in post operative ills. They have Dr. Ochsner's support in the

belief that not the slightest portion of the splineteric structures should be imaginated.

They find that in many children there is early in life an initial lesion of the appendix either developmental or inflammatory. The case histories show much the same clinical picture—a cross, colicky baby with later gastro intestinal disturbance, facial pallor especially about the nose and mouth, belly and side aches, fever attacks, and biliary spells with nausea, nervous and cutaneous manifestations. In determining the cause of these conditions the fluoroscope affords our only avenue of intelligence for by it a more accurate knowledge of conditions within the abdomen may be acquired than by even exploratory incision.

P. P. T.

DO YOU KNOW THAT

Rural sanitation is a health protection to the city-dweller?

It's foolish to educate a boy and then let him die of typhoid fever?

The U. S. Public Health Service issues a free bulletin on the summer care of infants?

Exercise in the garden is better than exercise in the gymnasium?

Clean water, clean food, clean houses make clean, healthy American citizens?

The State of California has reduced its typhoid death rate 70% in the past ten years?

Rats are the most expensive animals which man maintains?

It is estimated that the average manure pile will breed 900,000 flies per ton?

Notices.

Army Medical Corps Examination.

The Surgeon General of the Army announces that preliminary examinations for the appointment of First Lieutenants in the Army Medical Corps will be held on July 17, 1916, and August 14, 1916, at points to be hereafter designated.

Full information concerning these examinations can be procured upon application to the "Surgeon General, U. S. Army, Washington, D. C." The essential requirements to securing an invitation are that the applicant shall be a citizen of the United States, shall be between twenty-two and thirty years of age, a graduate of a medical school legally authorized to confer the degree of Doctor of Medicine, shall be of good moral character and habits, and shall have had at least one year's hospital training as an interne, after graduation. The examinations will be held simultaneously throughout the country at points where boards can be convened. Due consideration will be given to localities from which applications are received in order to lessen the traveling expenses of applicants as much as possible.

In order to perfect all necessary arrangements for the examination, applications must be completed and in possession of the Adjutant General at least three weeks before the date of examination. Early attention is therefore enjoined upon all intending applicants. There will be more than one hundred vacancies to be filled after July 1st, when the bill for the reorganization of the army becomes a law.

June 15, 1916.

The next examination for appointment in the Medical Corps of the Navy will be held on or about August 7, 1916, at Washington, D. C.; Boston, Mass.; New York, N. Y.; Philadelphia, Pa.; Norfolk, Va.; Charleston, S. C.; Great Lakes (Chicago), Ill.; Mare Island, Cal., and Puget Sound, Wash.

Applicants must be citizens of the United States and must submit satisfactory evidence of preliminary education and medical education.

The first stage of the examination is for appointment as assistant surgeon in the Medical Reserve Corps, and embraces the following subjects: (a) anatomy, (b) physiology, (c) materia medica and therapeutics, (d) general medicine, (e) general surgery, (f) obstetrics.

The successful candidate then attends the course of instruction at the Naval Medical School, which will begin on or about October 1, 1916. During this course he receives a salary of \$2,000 per annum, with allowances for quarters, heat and light, and at the end of the course, if he successfully passes an examination in the subjects taught in the school, he is commissioned an assistant surgeon in the Navy to fill a vacancy.

Full information with regard to the physical and professional examinations, with instructions how to submit formal application, may be obtained by addressing the Surgeon General of the Navy, Navy Department, Washington, D. C.

The foregoing information is furnished as it is believed that it is of interest to you, and that you will want to give it some notice in your Journal.

DO YOU KNOW THAT

It's worry, not work, which shortens life?

A cold bath every morning is the best complexion remedy?

Poor health is expensive?

The U. S. Public Health Service has reduced malaria 60% in some localities?

The death rate from typhoid fever in the United States has been cut in half since 1900?

Pneumonia kills over 120,000 Americans each year?

Flyless town has few funerals?

The well that drains the cesspool is the cup of death?

County News and Notes.

HANCOCK.

HANCOCK COUNTY MEDICAL SOCIETY.

The Hancock County Medical Society held its regular meeting at the residence of Dr. R. W. Wakefield, Bar Harbor, on Wednesday, May 17.

Dr. E. E. Holt, of Portland, was present, and read a very interesting paper to the general practitioner on "Iritis and Earache."

Dr. J. H. Patten, of Bar Harbor, reported a case of pellagra from the Bar Harbor Hospital.

During the social hour, the host, Dr. Wakefield, entertained with a delicious lunch.

Those present were:

Drs. Geo. Phillips, E. J. Morrison, Geo. Hagerthy, J. H. Patten, C. C. Morrison, R. W. Wakefield, of Bar Harbor; Dr. G. A. Neal, of Southwest Harbor; Dr. E. E. Holt, of Portland; Dr. Ernest Hart, of England, and Mr. McGouldrick of Bar Harbor.

G. A. NEAL, *Secretary.*

KENNEBEC.

The quarterly meeting of the Kennebec County Medical Society was held Wednesday, May 17th, at the Augusta State Hospital, by invitation of Dr. and Mrs. Forrest C. Tyson. The members and their wives were entertained at dinner, which was followed by a symposium on "General Paralysis of the Insane," by the staff of the State Hospital and a clinic illustrating the subject.

This is the first ladies' night of the association and proved to be a very pleasant occasion.

There were fifty-six present, as follows:

Dr. and Mrs. F. C. Tyson, Dr. and Mrs. O. C. S. Davies, Dr. and Mrs. W. H. Harris, Dr. and Mrs. L. L. Mann, Dr. and Mrs. A. H. Sturtevant, Dr. and Mrs. M. P. Hambleton, Dr. and Mrs. Karl B. Sturgis, Dr. and Mrs. H. J. Frederick, Dr. and Mrs. George E. Washburn, Dr. O. W. Turner, Dr. Arthur C. Wright, Dr. Cecil W. Clark, Dr. and Mrs. C. H. Witherell, Dr. and Mrs. G. R. Campbell, Dr. F. E. Vosburgh, and Dr. S. J. Beach, all of Augusta; Dr. and Mrs. P. S. Merrill, Dr. and Mrs. L. E. Bunker, and Dr. and Mrs. J. E. Towne, all of Waterville; Dr. and Mrs. R. D. Simons, Dr. R. E. Donnell, Dr. Alton Sawyer, Dr. F. E. Trout and Dr. A. B. Libby, all of Gardiner; Dr. and Mrs. H. A. Milliken, Dr. and Mrs. C. E. H. Beane, Dr. and Mrs. F. D. Nutting and Dr. and Mrs. H. W. Hall, all of Hallowell; Dr. F. H. Badger and Dr. George C. Parker, of Winthrop; Dr. W. W. Hendee and Dr. Bial F. Bradbury and daughter, Mrs. E. E. Cowan, of the National Soldiers' Home; Dr. and Mrs. J. S. Milliken, of Readfield, Dr. and Mrs. C. H. Leach, of South China.

PENOBCOT.

PENOBCOT COUNTY MEDICAL ASSOCIATION.

The regular monthly meeting of the Penobscot County Medical Association was held at the Bangor House, Tuesday evening, May 16, 1916, at 8.00 o'clock, with the President, Dr. E. B. Sanger, in the chair.

The reading of the minutes of the previous meeting was omitted.

Dr. Herbert C. Scribner, of Bangor, a graduate of the Maine Medical School, class of 1914, was elected to membership. The applications of Drs. Arthur H. Parcher, Bowdoin Medical School, 1915, and at present an interne at the Eastern Maine General Hospital, and Dr. F. A. Bickford, of Bradford, were received and referred to the Board of Censors.

The Committee, composed of Drs. John B. Thompson, H. H. Crane and Wm. P. McNally, appointed by the chair at the last meeting to consider the question of a fee table, reported, and their recommendations were unanimously adopted.

Dr. Daniel McCann, Chairman of the Board of Censors, reported that the committee had decided on June 15th as the best date to hold ladies' night.

After a very satisfactory dinner, Dr. Andrew R. MacAusland, of Boston, gave an exceedingly interesting and instructive paper on "Fractures", with stereopticon views.

Dr. E. E. Holt, President of the Maine Medical Association, who was also present, gave a short talk on "Lister and His Methods."

Dr. MacAusland's paper was discussed by Drs. Wm. C. Mason, D. A. Robinson and Daniel McCann.

There was a large attendance, the following being present:

Dr. A. R. MacAusland, Boston	Dr. Watson Purington, Kenduskeag
Dr. E. E. Holt, Portland	Dr. Wm. A. Purington, Dover
Dr. E. B. Sanger, Bangor	Dr. A. J. Bradbury, Oldtown
Dr. J. B. Thompson, Bangor	Dr. Wm. C. Peters, Bangor
Dr. Daniel McCann, Bangor	Dr. H. A. Scribner, Bangor
Dr. D. A. Robinson, Bangor	Dr. H. A. King, Bangor
Dr. G. E. Landry, Oldtown	Dr. H. C. McNeil, Bangor
Dr. B. L. Bryant, Bangor	Dr. W. P. McNally, Bangor
Dr. G. M. Woodcock, Bangor	Dr. H. M. Chapman, Bangor
Dr. Allan Woodcock, Bangor	Dr. Lester Adams, Bangor
Dr. C. P. Thomas, Brewer	Dr. H. L. Robinson, Bangor
Dr. C. M. Thomas, Brewer	Dr. L. M. Pastor, Bangor
Dr. C. H. Burgess, Bangor	Dr. E. E. Brown, Bangor
Dr. A. C. Strout, Garland	Dr. Wm. E. Fellows, Bangor
Dr. J. P. Russell, So. Brewer	Dr. C. S. Philbrick, Bangor
Dr. C. J. Nason, Winterport	Dr. C. S. Bryant, Millinocket

Dr. H. T. Clough, Bangor	Dr. F. D. Weymouth, Charleston
Dr. S. J. Redman, Dexter	Dr. S. N. Marsh, W. Enfield
Dr. E. P. Goodrich, Winterport	Dr. J. A. Lethieel, Brewer
Dr. W. L. Hunt, Bangor	Dr. L. S. Mason, Bangor
Dr. Barbara Hunt, Bangor	Dr. M. C. Madden, Oldtown
Dr. W. H. Nason, Hampden	Dr. W. C. Mason, Bangor
Dr. A. H. Twitchell, Oldtown	Dr. G. W. Hazelton, Manchester, N. H.
Dr. P. T. Haskell, Bangor	Dr. H. J. Milliken, Bangor
Dr. E. M. Marquis, Oldtown	

Correspondance.

Dear Doctor:

At the last meeting of the Maine Medical Association a committee was appointed to obtain a suitable memorial to be placed in the Art Building at Poland Spring to show the appreciation of the members of the Association for the more than generous hospitality accorded them and their ladies by Hiram Ricker and Sons.

The committee would like to procure a copy in bronze of Dallin's "Medicine Man." This can be done if enough members will subscribe one dollar each. Can we count on you for a subscription?

Very respectfully,

D. A. ROBINSON, for the Com.

TO THE EDITOR OF THE JOURNAL OF THE MAINE MEDICAL ASSOCIATION :

Dear Sir:—The inclosed circular letter was sent to three hundred and fifty of the members of the Maine Medical Association. In response to it there have been received one hundred letters containing one dollar each, and thirty-five containing a promise to pay one dollar when it should be called for. The remaining two hundred and fifteen were not answered at all, with one exception, and that said *no*. The committee are therefore forced to the conclusion that a large majority of those who were the guests of the Rickers at Poland Spring either did not approve of the "Medicine Man" as a suitable memorial of the occasion, or did not think that any return should be made to Hiram Ricker and Sons for their generous hospitality. The committee is, therefore, at a loss as to their duty in the matter; whether it is best to refund the money paid in, or obtain some less expensive design for a gift or to have a memorial tablet expressing the appreciation of those members who subscribed to the fund. If, through the JOURNAL, you can get an expression of opinion from the members of the Association who are interested in the subject for the guidance of the committee it would be greatly appreciated.

Very respectfully,

D. A. ROBINSON.

THE JOURNAL OF THE **Maine Medical Association.**

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All papers, case reports, etc., should be typewritten when possible.
Proof-sheets will be sent to the author when requested.
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The Journal assumes no responsibility for opinions expressed by the authors.

VOL. VI.

JULY, 1916.

No. 12

FIRST MEETING OF THE HOUSE OF DELEGATES

AT THE

Congress Square Hotel, Portland, Me.,

JUNE 6, 1916, AT 8 P. M.

The meeting was called to order by the President, Dr. E. E. Holt.

THE PRESIDENT: Is the report ready from the First District?

PROF. WHITTIER: I would like to make my report to-morrow, if I may. I have not the material with me here to-night.

THE PRESIDENT: Is the Committee on Venereal Diseases and Their Prevention ready to report?

DR. WHITTIER: Mr. President and Gentlemen of the Council:

REPORT OF THE COMMITTEE ON VENEREAL DISEASES AND
THEIR PREVENTION.

PRESENTED JUNE 7, 1916.

Mr. President and Members of the Association:

During the past year your Committee has received in contributions, \$298.00. The Chairman of the Committee has received in trust a fund, consisting of twelve shares of stock in the American Agricultural Chemical Company, the income from which at the present time amounts to \$72.00 a year, to be used for the promotion of social hygiene work in Maine along ethical and scientific lines, in order to create higher ideals and nobler living among the young men of the state. In accordance with the wish of the original donor, arrangements have been made whereby this stock may ultimately be turned over to the Maine Medical Association to establish a fund, to be called the Prince A. Morrow Memorial Fund, the annual income of which to be used for the purposes above

mentioned. Thus far the Committee has received from this stock two quarterly dividends of \$18.00 each. The Association, because of the fact that it was facing a deficit, was unable to give any financial aid to the work this year. The interest on the savings bank deposit for the year amounted to \$1.80. The total receipts for the year amount to \$335.80. The balance on hand is \$375.10.

Your Committee reported last year that of the different plans for the prevention of venereal disease in Maine, the following offered the most at that time:

1. Assisting in awakening the people of Maine to the dangers of venereal disease.
2. Assisting to some degree in establishing higher ideals of sexual morality.
3. Arousing parents to a sense of responsibility in regard to the sexual morals of their children.
4. Calling the attention of parents to the need of arousing in developing boys and girls a feeling of responsibility in regard to the health and welfare of their future families.
5. Assisting in awakening public opinion to support officers of sanitation in applying modern hygienic methods to the control of venereal disease.

Since its last report, the Committee has worked to carry out these plans. During the year, the Committee has written letters to 14 superintendents of schools and 35 teachers. Letters have been written to 151 parents of boys. This number, added to 1,598 previously sent to parents, makes about 1,750 individual letters written to parents, according to the plan outlined in the report of 1913.

The number of educational pamphlets distributed during the year is 189. Since the Committee began its work it has distributed about 4,200 such pamphlets.

For the development of public opinion and the securing of funds, the Committee has sent individual letters to 42 physicians, 32 clergymen, 20 business men, 9 lawyers, 3 women's societies, 2 Y. M. C. A. officials, 3 Y. C. T. U. officials, and 1 Grange official. Seventeen miscellaneous letters were written for the same purposes.

To keep in touch with the work of prevention of venereal disease in other parts of the country and to answer inquiries in regard to the work in Maine, 79 letters were written to State Boards of Health, 14 to City Boards of Health, 8 to societies devoting their energies to the suppression of venereal disease, 4 to governors of states, and 3 to secretaries of state.

The total number of letters sent out during the year, including all correspondence, is about 450.

The number of reports distributed during the year is 578. Nearly 11,000 reports have been distributed since the work was undertaken by the Committee. The combined number of reports, letters and educational pamphlets that have been sent out during the past year is 1,217, and more than 18,000 since the Committee began its work.

During the year the Committee has been registered and licensed to secure funds by the State Board of Charities and Corrections.

The Committee has made a rather extensive study of the work throughout the country for the suppression and prevention of venereal disease. For the purpose of securing reliable statistics, questionnaires were sent to the secretaries of the Boards of Health of all of the states and territories of the Union and of

fourteen cities. Including duplicates, ninety-eight questionnaires were sent out during the year.

Statistics were received from forty-seven states, Porto Rico, and the Philippines, and from seven cities. These statistics indicate that the importance of the dangers of venereal infections and the prevention of these diseases is being recognized by health authorities throughout the country and the number of states actually taking active measures for their suppression is increasing every year.

SPECIAL STATE CAMPAIGN.

It was found that fifteen states and one territory are carrying on special campaigns for the suppression of venereal disease. If to these states be added those other states having laws for the control of venereal diseases, those states requiring the reporting of venereal diseases, those states having provisions for the segregating of persons suffering with venereal disease, and those states providing free laboratory diagnosis of venereal diseases, it is found that thirty-four states and two territories are devoting attention to the suppression and control of venereal disease.

The work in those states carrying on special campaigns is done by the distribution of literature in eight states; by distribution of literature and lectures in three states; by distribution of literature, lectures and other means in two states; and by lectures and other means in one state and one territory. The "other means" include correspondence, exhibits, segregation of diseased persons, and examinations.

The actual or approximate cost of these special campaigns for the suppression of venereal disease could not be ascertained in a majority of the cases, for the reason that the amounts expended are incorporated in the general expense account of the health department. Oregon in the last four years has expended for this work through the Oregon Social Hygiene Society respectively \$6,000, \$12,400, \$15,400, and \$10,900.

REPORTING OF VENEREAL DISEASES.

Whereas in 1912 only two states, California and Utah, had state laws requiring the reporting of venereal diseases to the State Boards of Health, twelve states and one territory now have such laws or State Board of Health regulations. Of these states, and territory, California, Connecticut, Indiana, Iowa, Kansas, Louisiana, Michigan, Ohio, Utah, and Wisconsin, require such diseases to be reported by number; North Dakota, by number or initials; Vermont, by name; Porto Rico, by name or initials. In addition, in New York, by local regulations; venereal diseases are reportable to the city health authorities in New York City and Rochester.

With a view to determining the effectiveness of the laws in these states, the number of cases reported last year was asked. It was found that there were reported in California, 410 cases of gonorrhea and 310 cases of syphilis; in Connecticut, six cases of gonorrhea and 645 cases of syphilis; in Iowa, 1,600 cases of venereal disease; in Louisiana, 150 cases of gonorrhea, and 102 of syphilis; in Michigan, 20 cases of gonorrhea and 22 of syphilis; in North Dakota, 77 cases of gonorrhea, 14 of syphilis, and 10 of chancroid; in Wisconsin, 892 cases of gonorrhea, and 281 of syphilis; and in Porto Rico, 368 cases of syphilis. In Indiana, Kansas, and Ohio, statistics were not available, for the reason that the first year of the law was not complete when the questionnaire was answered. In Utah, "very few" cases were reported during the past year. Vermont did not state the number of cases reported.

An opinion of the efficacy of laws requiring the reporting of venereal diseases was asked of the secretaries of the Boards of Health of all of the states and territories. In the states and territory in which such laws now exist, five favored the law, two were not ready to make a statement, two were doubtful as to its value, one declared in opposition to it, and three ventured no opinion.

Of all answers received, twelve were taken as decidedly in favor of a law of this kind, three were not ready to state an opinion, six were doubtful of the value of such legislation, and five only were willing to declare against it. The officials of the remaining states made no answer.

FREE LABORATORY DIAGNOSIS.

Twenty-seven states and two territories provide free laboratory diagnosis of venereal diseases to some extent. Fifteen states and one territory provide laboratory diagnosis for both syphilis and gonorrhea; ten states provide diagnosis of gonorrhea alone; one state provides free diagnosis of syphilis alone; and one territory, free diagnosis of syphilis of the skin only. One state provides free smear diagnosis, and does the Wassermann reaction for syphilis at a reduced rate. The other states provide no free diagnosis of venereal diseases.

In the opinions of the secretaries of the State Boards of Health of those states providing free laboratory diagnosis of venereal diseases, the physicians of the state generally avail themselves of the privilege in sixteen states; in three states they do not. In the other states, no statement was made of the use of laboratories by the physicians.

Only a few of the states doing free laboratory diagnosis gave statistics as to the number of cases of venereal disease found by examination last year. Connecticut found six cases of gonorrhea and 645 cases of syphilis; Florida, 568 cases of gonorrhea; Michigan, 64 cases of gonorrhea; New Hampshire, 174 cases of gonorrhea; New York, a "few" cases of gonorrhea, and 1,098 of syphilis; Oklahoma, "very few" cases; and Porto Rico, 368 cases of syphilis.

SEGREGATION OF PERSONS SUFFERING FROM VENEREAL DISEASE.

In eight states and two territories something is done toward the segregation of persons suffering from venereal disease. In general, this segregation is not extensively carried out, but in Buffalo, N. Y., persons affected with venereal disease in a communicable form are committed to the Municipal Hospital as vagrants; in Oregon, school children under fourteen years of age with gonorrhea are excluded from the schools until cured; in Vermont, the law provides for quarantine; Porto Rico maintains in San Juan a Special City Hospital for Venereal Diseases in Women with compulsory weekly examinations of prostitutes, the daily attendance reaching 60 persons, "more or less"; and in the Philippine Islands, prostitutes with venereal disease are segregated.

SOCIAL HYGIENE SOCIETIES.

According to the replies of the secretaries of the State Boards of Health, there are at least thirteen societies in ten states devoting their activities to the prevention of venereal disease. This number is probably considerably lower than the actual number of such societies in the country.

AMOUNTS EXPENDED BY STATES FOR VENEREAL DISEASES.

In an attempt to secure statistics for comparison of the amounts expended last year by the states and territories for the suppression of tuberculosis, venereal disease, and for diseases other than tuberculosis, it was found that many of the state appropriations for health work are general and the cost of the

various parts of the work cannot be easily separated. However, in a number of the states, it was shown that while the dangers of tuberculosis and other communicable diseases are recognized and given large financial attention, venereal diseases either are not provided for at all or are taken care of by a mere fraction of what is expended for the prevention of the others. In a few states only does the work of suppression of venereal disease receive moderate or adequate financial provision.

In the seven states by which the amounts expended under these three headings were given or estimated, the results were as follows:

<i>State.</i>	<i>Tuberculosis.</i>	<i>Venereal Disease.</i>	<i>Diseases Other Than Tuberculosis.</i>
Connecticut,	\$180,000	\$ 500	\$22,000
Iowa,	5,000	0	2,000
Louisiana,	10,000	0	27,000
Massachusetts,	511,361	3,000	21,000
Michigan,	0	0	15,000
New Jersey,	10,000	0	128,000
South Carolina,	16,000	0	57,000
 Totals,	 \$732,361	 \$3,500	 \$272,000

In these states more than 209 times as much money was expended for tuberculosis as for venereal disease, and more than 77 times as much for diseases other than tuberculosis as for venereal disease.

From eleven states and one territory comparative statistics of the amounts expended for the suppression of tuberculosis and the suppression of venereal disease are available as follows:

<i>State.</i>	<i>Tuberculosis.</i>	<i>Venereal Disease</i>
Connecticut,	\$180,000	\$500
Delaware,	10,000	0
Iowa,	5,000	0
Kansas,	25,000	0
Louisiana,	10,000	0
Massachusetts,	511,361	3,000
Michigan,	0	0
New Hampshire,	20,000	0
New Jersey,	10,000	0
Rhode Island,	197,000	0
South Carolina,	16,000	0
Porto Rico,	16,000	0
 Totals,	 \$1,000,361	 \$3,500

In these states and territory more than 285 times as much was expended for tuberculosis as for venereal disease.

In seven states, statistics make it possible to compare the amounts expended for venereal disease and for diseases other than tuberculosis, as follows:—

<i>State.</i>	<i>Venereal Diseases.</i>	<i>Diseases Other Than Tuberculosis.</i>
Connecticut,	\$ 500	\$ 22,000
Iowa,	0	2,000
Louisiana,	0	27,000
Massachusetts,	3,000	21,000
Michigan,	0	15,000
New Jersey,	0	128,000
South Carolina,	0	57,000
 Totals,	 \$3,500	 \$272,000

In these states more than 77 times as much was expended for diseases other than tuberculosis as for venereal disease.

AMOUNTS EXPENDED BY STATE LEGISLATURES, STATE BOARDS OF HEALTH, AND ASSOCIATIONS FOR VENEREAL DISEASE.

In the same way, the total amounts expended in the various states by the legislatures, by the State Boards of Health, and by associations considered together, for the suppression of tuberculosis, for venereal disease, and for diseases other than tuberculosis, are not available from all of the states. Comparisons of the amounts expended for these three items in the states from which statistics were received, however, also show that very much more importance is placed on the suppression of tuberculosis and other disease than on the suppression of venereal disease.

In the five states in which it was stated that nothing was expended last year for the suppression of venereal disease, while the expenditures for tuberculosis and other diseases were approximately known, the results are as follows:—

<i>State.</i>	<i>Tuberculosis.</i>	<i>Venereal Disease.</i>	<i>Diseases Other Than Tuberculosis.</i>
Iowa,	\$ 5,000	0	\$ 5,000
Maryland,	110,000	0	90,000
Montana, .	35,000	0	23,500
New Jersey,	10,000	0	118,000
South Carolina,	20,000	0	57,000
 Totals,	 \$180,000	 0	 \$293,500

In these states infinitely more was expended for tuberculosis and other diseases than for venereal disease.

As compared with tuberculosis, the amounts spent in those fifteen states from which statistics are available for the prevention of venereal disease, are as follows:—

<i>State.</i>	<i>Tuberculosis.</i>	<i>Venereal Disease</i>
Connecticut,	\$200,000	\$1,000
Delaware,	15,000	0
Indiana,	5,000	2,000
Iowa,	5,000	0
Maryland,	110,000	0
Massachusetts,	209,000	3,000
Montana,	35,000	0
Nevada,	0	0
New Hampshire,	20,000	0
New Jersey,	10,000	0
New Mexico,	0	0
New York,	5,000,000	5,000
Oklahoma,	0	0
Rhode Island,	220,000	0
South Carolina,	20,000	0
 Totals,	 \$5,849,000	 \$11,000

In these states more than 531 times as much was expended for the suppression of tuberculosis as for the suppression of venereal disease.

As compared with diseases other than tuberculosis, the amounts spent for

the suppression of venereal disease in 11 states from which statistics are available, are as follows:—

<i>State.</i>	<i>Diseases Other Than Tuberculosis.</i>	<i>Venereal Disease</i>
Connecticut,	\$25,000	\$1,000
Indiana,	25,000	2,000
Iowa,	5,000	0
Maryland,	90,000	0
Mississippi,	23,000	0
New Jersey,	118,000	0
New Mexico,	0	0
Oklahoma,	0	0
South Carolina,	57,000	0
Montana,	23,500	0
Nevada,	1,250	0
Totals,	\$366,000	\$3,000

In these states more than 122 times as much was expended for the suppression of diseases other than tuberculosis as for venereal disease.

In three states in which the total amounts spent for health work other than venereal disease were given, these amounts compared with the amounts spent for venereal disease are as follows:

<i>State.</i>	<i>Venereal Disease.</i>	<i>All Other Diseases</i>
North Dakota,	0	\$125,000
Ohio,	0	125,000
Oregon (one-half biennial amount),	\$7,500	15,000
Totals,	\$7,500	\$265,000

In these three states more than 35 times the amount spent for venereal disease was expended for other diseases.

While the above statistics do not take in all of the states of the Union, they are probably typical and indicative of the true situation, *i. e.*, if all of the states and territories could be tabulated, the general result would be the same.

SEGREGATION OF PROSTITUTES.

It was found that there are, or have been, cities maintaining systems of segregation of prostitutes in twelve states, and in Porto Rico, and the Philippine Islands. Twenty-five states have no such cities, and no statistics were received from eleven states.

Special questions were sent to fourteen of the cities reported as having systems of segregation. The Committee received replies from health officers of seven of these cities. In Phoenix, Ariz., Denver, Colo., and Norfolk, Va., state laws have put an end to the segregation of prostitutes as formerly carried out. The health officer of Charleston, So. Carolina, was unable to make a statement in regard to the system in that city. The health officers of Prescott, Ariz., Detroit, Mich., and Cincinnati, Ohio, where attempts to regulate prostitution have been, or are being made, are unanimous in their opinions that such efforts do not accomplish the desired results.

In general, the replies from the cities mentioned indicate:

1. Segregation is not strictly enforced.
2. The system is generally under the control of the police department.

3. Registration of prostitutes is not successful.
4. Examinations of prostitutes by private physicians are practically useless in preventing the spread of infection.
5. Efforts to isolate prostitutes found to be diseased are inefficient. In Cincinnati efforts at quarantine have been paralyzed because of the release of such persons by habeas corpus proceedings.
6. While segregation may limit solicitation, immoral women are to be found in considerable numbers outside the so-called vice district.
7. Segregation does not limit clandestine prostitution, one of the most dangerous forms.
8. The sale of liquor in houses of prostitution often furnishes one of the principal means of support.
9. Registration of prostitutes does prevent some women who have never been professionals from becoming professionals, for the reason that it is made difficult to obtain the first license.
10. Ninety per cent. or more of all prostitutes have venereal disease in a recent or uncured form. In a recent series of examinations of prostitutes in Detroit, 94% were found to be diseased.
11. Venereal diseases should be handled as are other communicable diseases, regardless of the moral side of the problem.
12. The control of prostitution is a police function; the control of venereal diseases is a health department function.

Numerous letters of endorsement and commendation have been received by the Committee. The following are extracts from some of the letters:

Dr. Charles W. Eliot, President Emeritus of Harvard University:

"The work of the Committee of the Maine Medical Association on Venereal Diseases and their prevention seems to me very well conceived and executed, and I hope very much that it will be efficiently maintained. Can your Committee undertake a campaign to persuade other state and city medical associations throughout the country to appoint similar committees, and do similar work? My experience in the National Federation of Sex Hygiene (which Dr. Prince Morrow organized), in the American Association for Social Hygiene, and in the Massachusetts Society for Sex Education (now called the Massachusetts Society for Social Hygiene) has satisfied me that the medical profession is a good field for missionary work on the prevention of venereal diseases, and that society at large needs the direct influence and teaching on this subject of medical associations and the medical profession. Does not the work of the Maine Medical Association, through its Committee on Prevention of Venereal Diseases, indicate a valuable mode of bringing this good influence to bear on all American communities?"

Ex-Governor Bert M. Fernald, West Poland:

"I have your letter of the 5th, and glad to know you are doing such good work along lines mentioned."

"I do not know of any thing I could suggest, as I appreciate the value of your knowledge, and know you can handle this as well as any man in the State."

M. C. Fernald, LL. D., Professor Emeritus, Department of Philosophy, University of Maine (deceased):

"It appears to me your committee is doing its work thoughtfully, judiciously, and tactfully, and I trust with real success, in overcoming the evil which you are combating. Enclosed please find my mite to help on the postage."

President George C. Chase, Bates College, Lewiston:

"I am greatly interested in the work that you represent, and am sure that it should receive the careful attention of every intelligent citizen of Maine. I wish I could be helpful to your committee. I enclose a small contribution."

Mr. Michael M. Davis, Director Boston Dispensary, Boston, Mass.:

"I am very much indebted to you for your letter with interesting report of your committee. I feel that if you could only have two or three times the amount of financial support which you had last year, the result would be very much more satisfactory. It seems a pity that so promising a work should not have more ample funds."

Dr. Frederick Henry Gerrish, Portland:

"I thank you for your letter enclosing your committee's report to the Maine Medical Association on the prevention of venereal diseases.

"For nearly forty years I have been working with tongue and pen along this line, and you are familiar with my efforts with students of colleges and preparatory schools. In my judgment there is no direction in which intelligent endeavor for the benefit of the community can be as well applied as in this, and you may be assured of my hearty sympathy and co-operation."

Massachusetts Society for Social Hygiene, Boston, Mass.:

"We are very glad to learn of the splendid work you are doing in Maine, and shall be glad to co-operate in any way possible."

Dr. Estes Nichols, Portland:

"I beg to acknowledge report of the Committee on Venereal Diseases and their Prevention, and I commend the work accomplished by this committee during the last year; in fact, I am so much impressed with the work that is being done, that I take pleasure in enclosing check to help, in a small way, the work along."

Mr. T. W. Longley, Oakland, Master Sidney Grange, No. 194:

"I fully believe that you and your associates are doing a great work in Maine, a work in which everyone who stands for the welfare of our boys and girls should be deeply interested. I hope to be able to help to some extent just a little later on. I am glad that such able men as yourself and those associated with you have been raised up to assume charge of this work. May heaven's blessing and benediction be yours."

Hon. F. H. Appleton, Bangor:

"I received the report of your Committee on Venereal Diseases and read it with great interest.

"I think the committee is doing a most valuable work and rendering a service for the youth of the state that is simply incalculable."

Mrs. Althea G. Quimby, North Turner, President of the Maine Woman's Christian Temperance Union:

"I am deeply interested in the report received from you. You will be glad to know that we of the W. C. T. U. are, through our department of social purity, constantly working along just such lines as your honored committee

suggests—educating and arousing the people of Maine, especially the mothers, to the dangers of these dread diseases.

"I wish you every success in your important work."

Robert H. Gardiner, Esq., Gardiner:

"I enclose a check for the Committee on Venereal Diseases, with deep appreciation of their valuable labors."

Professor Alfred Williams Anthony, Lewiston, Special Joint Secretary, Union of Baptists and Free Baptists in Missionary and Denominational Activities:

"It is exceedingly gratifying, to all who have social welfare at heart, to have such a committee as yours, in a wise and discreet way, guiding and instructing parents and teachers in these most important matters. I have no suggestions to make. Your own experiences qualify you and your associates to see and do the best things. Please count me as one of the supporters, and call upon me for a check of \$10.00 at any time you may need it."

Dr. B. L. Arms, Galveston, Texas, Department of Extension, Division of Human Conservation, University of Texas:

"I am very glad that your work is proceeding so nicely, and trust that you will receive all the aid you need. The education of the young, and perhaps more particularly of the parents, seems to me to be the solution."

Dr. W. F. Snow, New York City, General Secretary, American Social Hygiene Association, Inc.:

"I am very much interested in your letter summarizing the valuable work which has been done by your committee during the past year. It is the hope of this Association that the other state medical associations may ultimately appoint committees of this character under the leadership of such energetic and far-seeing men as evidently compose your committee. I think it ordinarily is impossible for medical men to realize how essential to sound progress in the social hygiene field is the co-operation and direction of such committees of medical men as yours."

Mr. Linville W. Robbins, Houlton, Superintendent of Schools:

"You may be assured that I am in hearty sympathy with this move and will do everything in my power to assist you."

Dr. Dudley A. Sargent, Harvard University:

"Your letter enclosing report of the Maine Medical Association on the prevention of venereal diseases was received, and I thank you very much for the same. You are doing a good work and I shall be pleased to do anything I can to help the cause along."

Professor Henry W. Brown, Colby College, Waterville:

"I am glad to contribute the enclosed amount to the very worthy cause which you represent."

DISTRIBUTION OF PAMPHLETS.

Mr. William A. MacCormick, Bath, General Secretary, Young Men's Christian Association:

"As to the report, I have not kept any records, but as far as we can trace the books they have been read by at least twenty boys. The boys to whom I gave them handed them on to their friends, and a few of our members have read the copy which I keep here at the office. In all cases, with one exception, the

pamphlet has given the boys a more serious idea of conditions among boys and young men. I think I am safe in saying that they got more help from this than from any other source in their experience."

Rev. Carl D. Garland, Superintendent East Maine Conference of the Methodist Episcopal Church, Rockland District:

"Your inquiry relative to the pamphlet you recently sent dealing with sex hygiene, I read with interest, and, as I informed you, passed it on to my son, who has come to the years of maturity, with instructions to send it along the line to his friends. He reported that it was very useful and helpful. Personally, as I remember it at this date, the pamphlet was put up in splendid form, and gave in an intelligent and discreet way all needed information, and such a tract put in the hands of our youth would have the utmost value. I am heartily in favor of educating our youth along this much needed line. I believe thoroughly in the value of this campaign and have small patience with those who allow these vital facts to be obtained by accident and through vitiated channels."

Rev. R. Lenis Kimball, Pastor of Baptist Church, Millinocket:

"I am writing in regard to the pamphlets sent out by you entitled 'B. V. P.' I think I can use about two dozen of them to good advantage. I wish to give them out to young men of eighteen or twenty years."

Mr. ——, Portland:

"A friend of mine called my attention to a book you sent him, or rather a small pamphlet, for boys to read. As I have five boys, oldest thirteen years, I should like to have you send me one."

Mrs. ——, Brunswick:

"Your letter and little booklet received, for which you have my heartfelt thanks. I think it just what all our boys need to know. And I know it is a work which will be blessed of heaven, and will doubtless save a large percent of our boys. I have only one of my boys with me; three more are away in other state. Would you send them each a booklet, or would it be asking too much? I enclose postage, or if you would rather send them to me to send them, you can do so."

Following is a summary of the receipts and expenditures of the Committee to date:

Receipts.

Previous to 1915-16.

Contributions, 1911-15,	\$965.00
Maine Medical Association Appropriations, 1912-15,	150.00
Interest previous to June, 1915,	33.19
 Total,	 \$1,148.19
Contributions since June 9, 1915:	
Mr. Robert H. Gardiner, Gardiner,	\$100.00
Mr. C. H. Payson, Portland,	50.00
Mr. Charles A. Dean, Boston, Mass.,	25.00
Hon. F. H. Appleton, Bangor,	20.00
Mrs. Maria W. Prentiss, Bangor,	10.00
President William DeWitt Hyde, Bowdoin College,	10.00
Mr. S. W. Philbrick, Skowhegan,	10.00

Mr. Hiram W. Ricker, South Poland,	10.00
Dr. D. A. Sargent, Harvard University,	10.00
Professor Charles T. Burnett, Bowdoin College,	10.00
Professor Alfred W. Anthony, Lewiston,	10.00
Professor Paul Nixon, Bowdoin College,	5.00
Professor M. P. Cram, Bowdoin College,	5.00
Dr. Estes Nichols, Portland,	5.00
Mr. Constant Southworth, Portland,	5.00
Dean Leon S. Merrill, University of Maine,	3.00
President George C. Chase, Bates College,	2.00
Professor M. C. Fernald, University of Maine,	1.00
Mrs. Althea G. Quimby, North Turner,	1.00
Professor Henry W. Brown, Colby College,	1.00
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Total,	\$298.00
Dividends on stock held by committee,	36.00
Interest on savings deposit since June, 1915,	1.80
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Total receipts for 1915-16,	\$335.80
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Total receipts since 1911,	\$1,483.99

Expenditures.

Previous to 1915-16.

Approved bills paid by the Treasurer,	\$ 50.00
Literature,	2.50
Telegram,	.25
5,000 copies, "The Boy's Venereal Peril,"	100.00
Postage,	170.41
Clerical work,	508.94
Express,	11.92
Printing and stationery,	128.50
4 dozen sex hygiene pamphlets,	4.00
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Total,	\$976.52

1915-16.

Postage,	\$14.50
Clerical work,	94.25
Express,	1.07
Printing and stationery,	22.55
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Total,	\$532.37
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Total expenditures since 1911,	\$1,108.89
Balance on hand in the Brunswick Savings Institution,	\$373.30
Cash on hand,	1.80
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Total balance,	\$375.10

Your Committee believes that the plans for the prevention of venereal disease, as given last year and set forth in the first part of the present report, still offer the greatest opportunity for successful work in Maine. Parents are beginning to realize the necessity of early instruction in matters of sex. The

social diseases, a few years ago forbidden discussion, are receiving the consideration of many thoughtful citizens. The public believes more than ever before that modern hygienic methods should be applied to all communicable diseases. Your Committee hopes that it is contributing toward these changes and asks that it may be continued for the purpose of further work along these lines.

Respectfully submitted,

F. N. WHITTIER, M. P., Brunswick,
A. L. STANWOOD, M. D., Rumford,
R. A. HOLLAND, M. D., Calais,
W. F. HART, M. D., Camden:

PROF. WHITTIER: I have here, Mr. Chairman, the list of expenditures for the past year, with the vouchers therefor. I have also the bank book of the Brunswick Savings Institution, with also the amount of cash on hand. Last year the Council audited to date. This year I would like to have the accounts beginning from last year, and going on, audited, if it is the pleasure of the committee. I thank you for your attention.

PRESIDENT HOLT: You have heard the very interesting report of the Chairman of the Committee on Venereal Diseases. Are there any remarks?

DR. BEACH: Mr. President: Dr. Gilbert has made the suggestion that this very valuable report ought to be read before the general meeting, and I will make the motion that this report be read before the general meeting of the Association.

Dr. Beach's motion, being duly seconded, was unanimously carried.

PRESIDENT HOLT: Are there any remarks on Dr. Whittier's report?

DR. HARDY: I would like to ask Dr. Whittier what sum of money he needs from the Association for the work next year.

DR. WHITTIER: I find, Mr. Chairman, that the work of the Association can be carried on in the way it has been carried on without depending on the Association for financial aid. The reason I asked for aid last year, and the reason why I should ask for aid this year if it seemed wise to ask for it, is to be able to say to people that the Association is giving some aid; and, if the Association should give us fifty dollars, or even twenty-five dollars, we should value it, not for the sake of the money—because we can get money sufficient to keep on with the work by appealing to private individuals—but it is worth something to be able to say that the Association is backing us, even though that financial backing is very slight. We can get along without it, but we would appreciate very much a small sum for the above reason.

PRESIDENT HOLT: I feel as though, having been a member of this committee for years, and never having done anything—

PROF. WHITTIER: That is not so.

PRESIDENT HOLT: I ought to say that we owe all this work personally to Prof. Whittier. Of course, in all our altruistic work, it is quite important that we should have it well balanced; and I could not help but think of the unbalanced condition which is revealed by the report that we have heard to-night. I should like to ask Prof. Whittier what factor, aside from racial institution, he thinks leads to venereal diseases?

PROF. WHITTIER: It seems to me, Mr. Chairman, that the great factor that leads to venereal disease is ignorance—ignorance in a great many ways; ignorance of the consequences of venereal diseases; ignorance of the responsibilities that the individual has toward his family and toward his future family, toward the community in general. It has occurred to me, and it has been my experience in dealing with boys, that it does not amount to very much to point out the terrors and the dangers of venereal disease. A certain class of boys do not mind danger—they love it—and sometimes this is true of boys who in the main are the best boys. But I have found that such boys can very often be appealed to on the ground of chivalry, on the ground of responsibility to their families and to their future families. To sum it all up, it seems to me that ignorance in the broadest sense, aside from racial institution, is the great source of venereal disease. Of course, when you come down to the actual source of infection, why, then, the prostitute is the immediate source of infection.

PRESIDENT HOLT: It is a subject that, although I have not written much with reference to it, or done much in regard to it, yet it has engaged my attention for a great many years, and it has occurred to me that the most potent factor in inducing these habits is the cigarette. I feel sure that the cigarette is an inducing thing to very many boys. This problem has been worked out in the case of morphia with very great detail by Benz of Bonn, I believe, who says that poisonous by-products are developed in the body, for which the only antidote is more morphine. From that analogy it may be reasoned that the use of the cigarette may develop a like poisonous by-product in the system, for which the boy, in order to satisfy that poison, repeats his cigarette. He becomes a chained smoker, and indulges in alcoholic beverages as the next step. In tracing back venereal disease, you will find, by questioning the patient, that his downfall was generally through that chain, and that the immediate cause was alcoholic in some form. Statistics show that alcohol, and also nicotine, reduces the resistance of the body,

and you get consumption as a result. Therefore, the large amount of thought expended on consumption is indirectly taken care of by these other diseases and habits; and thus you have the circle going round and round.

I am sure that the subject that Prof. Whittier is working on should be supported by this Association. I also think that his paper should be published in a lay journal or paper. Of course, many people would not hear or see anything of it unless it were so published.

One of the broadest altruistic movements that I know of is a book entitled "How to Live." I think every physician should have that book, because he will find it a great help in his practice; it will save him a great amount of talk. It only costs fifty cents, and is published by the Life Extension Institute, composed of twenty-seven of the most eminent men in this country, of which Ex-President Taft is the chairman and President of the Board. It is purely altruistic. All the money that is made from the sale of this book is simply used to issue further books on the same line.

I hope that the House of Delegates will vote to continue the appropriation.

We will now listen to the Treasurer's report.

TREASURER THOMPSON :—

The cash in the treasury last year, June 1, 1915, was,	\$2,176.19
Cash received from dues for this year (1916),	<u>1,360.00</u>
Making in all,	\$3,536.19
By cash paid out this year,	<u>2,754.50</u>
Leaving a balance of	\$781.69

The bills are all paid except \$300, which was left still due the Journal. This would leave some \$481 in the treasury, with the books closing June first, as they are supposed to close according to the constitution. Since June first I have received from several counties additional money, amounting to \$362, making in the treasury \$1,143.69, less the \$300 still due the Journal, or \$843.69.

It perhaps would be of interest for you to know the number of men who are reported paid and in good standing from each county.

Doctors paying direct, that is, not paying through the counties, are,	11
Kennebec County has members paid,	64
Androscoggin,	56
Aroostook,	54
Cumberland,	151
Franklin,	17
Hancock,	25
Knox,	18
Penobscot,	93
Oxford,	41
Somerset,	19

Sagadahoc,	18
Washington,	41
York,	70
Total members,	<hr/> 678

The county which has fallen off the most is Knox County. The other counties have either gained or remained stationary.

These accounts, and the accounts of Dr. Whittier, are to be audited by the Board of Councilors, who are the Finance Committee; so I will give them these books, and Dr. Whittier's, if they will take them and audit them.

DR. HARDY: Mr. President, I think that the balance in the treasury shows the wisdom of the step we took last year in appointing a committee to make up a budget for the year, and I move that the Chair appoint a committee of three to make up the budget for the ensuing year.

Dr. Hardy's motion was seconded by Dr. Gilbert, and unanimously passed, and the Chair appointed Drs. Hardy, Bryant and Stanwood as such committee.

PRESIDENT HOLT: The Treasurer's reports, if there are no remarks, will go to the Council for action.

On motion of Dr. Stanwood, it was voted to accept the report of the Secretary and Treasurer.

DR. GILBERT: Mr. President:

JOURNAL REPORT.

The past year has been the hardest one for your Managing Editor, and yet there have been some bright spots. Following the June meeting it became necessary to break in a new stenographer, whereas a few months later we were compelled to change printers. These events have resulted in delaying each issue until we were a month behind in our work. We now hope to catch up and have things run more smoothly. The year's work has covered all business matter and papers of the State Association as well as that of some few of the counties.

The County Secretaries have shown a far greater interest in reporting the proceedings of their meetings. Personal news items have not come in as freely as we could wish. Many of the papers read before the County Societies should be given a wider scope, and the Journal offers this opportunity. Moreover the publishing of a paper in which we find some interesting facts, places those same facts where any member can find them when occasion requires their use. We, frequently have requests made for articles appearing in some back issues. By having each volume of 12 copies bound, we have a file which enables us to serve the Association. The wider publicity we can give to good papers, the better able the Journal will be to serve the members.

One bright spot during the past year has been the work of the Co-operative Bureau, which has assumed the advertising work of the Journal, and enabled us to leave a larger balance in the state treasury.

There are now some 28 State Medical Journals banded together and carrying only Ethical Advertising. The Co-operative Bureau was organized by the American Medical Association at the request of the Editors of the State Medical Journal to handle our advertising work, and your Editors feel a deep obligation to the bureau for the valuable service to the Maine Journal.

We feel reasonably sure that within a few months we will have matters adjusted so that the work of the Journal will be adjusted to the new conditions.

Respectfully submitted,

Frank Y. Gilbert,
Managing Editor.

TREASURER'S REPORT.

THE JOURNAL RECEIPTS.

Balance in Treasury at beginning of the year	\$ 76.52
From M. M. A.	800.00
Due from advertising	841.12
Total amount	\$1,717.64
(Average monthly income from advertising)	70.09

Expenditures.

12 issues	\$1,561.01
(Average cost per issue)	\$130.08
Balance on hand	\$156.63

E. W. GEHRING.

DR. HARDY: I would like to ask what appropriation the Journal needs for the next year?

DR. GILBERT: We will leave this to the new Finance Committee.

PRESIDENT HOLT: Is there any other business to come before the meeting?

DR. GILBERT: I have here a resolution in favor of setting apart the Mount Katahdin region as a national park that Mr. Guernsey has sent in.

RESOLUTION IN FAVOR OF CREATION OF MT. KATAHDIN NATIONAL PARK.

WHEREAS: The territory in Maine, including the Mt. Katahdin region, embraces lands which should be saved from commercialism for all time, and set aside as a National Park for the benefit of the people, and

WHEREAS: This section has twice been burned over, thereby demanding scientific reforestation and care, in order to protect head waters of streams, that the value of our industries be not imperiled, and

WHEREAS: The need for opening up a section whereby animal life shall be preserved and the lives of thousands desiring a restful vacation shall be rendered

safe from hunters of all states, who overrun our forests and cause many deaths every year, and

WHEREAS: The need is urgent for opening up and controlling this section, in order that the people of this and adjoining thickly-populated states may enjoy a vacation in this mountainous section, famed for its beauty, at a reasonable, instead of present excessive cost;

Resolved: That we most earnestly desire this Mt. Katahdin region to be set apart as a National Park, in which the entire citizenship is interested, and we petition our Honored President, Woodrow Wilson, the Secretary of the Interior, and all Senators and Representatives, especially those composing the Committee on Agriculture, to approve this bill.

DR. GILBERT: I will make a motion, Mr. President, that we adopt this resolution, and that a copy be made and sent to Mr. Guernsey.

DR. BRYANT: Mr. President, while personally I am in favor of a park at Mount Katahdin, it does not seem to me that this is a matter properly within the scope of the Maine Medical Association. I cannot see what we have to do with it except as individuals. I do not believe that this is a matter that in any way comes under any business we have to transact here.

Dr. Gilbert's motion, being duly seconded, was then duly carried.

On motion of Dr. Williams, which was duly seconded, the chair appointed Drs. Williams, Hardy and Mason a committee on resolutions relative to the death of Dr. King.

Voted to adjourn.

SECOND MEETING OF THE HOUSE OF DELEGATES,

JUNE 7, 1916, 9.00 A. M.,

AT THE CITY BUILDING.

Dr. Holt in the chair.

Dr. Hardy, for the Budget Committee, reported the following appropriations:

For the Journal,	\$800.00
Salary of Secretary and Treasurer,	100.00
Salary of the Editor of the Journal,	100.00
For the Committee on Venereal Diseases,	25.00
Expenses of the President,	25.00

Voted, That the report of the committee be accepted.

The following named gentlemen were appointed as the Nominating Committee: Drs. Bryant, Mason, Williams, Stewart and Beach.

Voted to adjourn, subject to the call of the President.

THIRD MEETING OF THE HOUSE OF DELEGATES,
JUNE 7, 1916.

Meeting called to order by Vice-President Mason.

VICE-PRESIDENT MASON: I will read a communication.

"To the Officers and Members of the Maine Medical Association:

The York County Daughters of Hygieia earnestly desire to bring to the attention of the Maine Medical Association at this time the existence of their organization, and respectfully petition

TO THE OFFICERS AND MEMBERS OF THE MAINE MEDICAL ASSOCIATION:

The York County Daughters of Hygieia earnestly desire to bring to the attention of the Maine Medical Association, at this time, the existence of their organization, and respectfully petition that it shall be recognized officially by the Maine Medical Association, in order that it may have the approval and support of the highest medical body in Maine.

Our hope is to extend this plan of co-operation throughout every county in this State, so that a state-wide organization may be formed to include the wives of all the members of the county medical societies.

The Daughters of Hygieia wish to assist as far as possible in the promotion, along educational and social lines, of the exalted purposes of the Maine Medical Association.

York County Daughters of Hygieia respectfully petition the Maine Medical Association, now assembled in their sixty-fourth annual meeting in Portland, for their approval of the purposed formation of a Maine State Association of Daughters of Hygieia, said organization to include all of the counties of Maine, and to be established in accordance with the principles already put into practice by the Daughters of Hygieia of York and Piscataquis Counties.

THE CHAIR: The subject is open for discussion.

DR. POWELL, of Saco: Mr. Chairman, I want to say just a word in regard to the organization in York County and what it is. This is entirely "off the bat," as I did not know the question was up until this moment. This organization was formed two or three years ago by a few of the doctors' wives associated with the County Association. The custom has been for the wives of the doctors to come together at the same time that the doctors met for their county association meetings. They have made a little social time of it among themselves, and it has really reacted very favorably to the benefit of the association itself. We find that the physicians themselves attend the York County meetings better than ever before; that there is greater interest among the physicians of the county; that there is a finer sense of harmony among the men than ever before. It brings them together in a social way that certainly seems to add generally to the value, efficiency and pleasant associations of these meetings, as well as for its educational value. It seems to the physicians of York County—and I am very sure I can

speak for them—a mighty fine thing from the standpoint of the county association, and, speaking for the county association, I think I voice their sentiment to a man that it is a great benefit, and we believe an organization such as is proposed will prove of benefit to the counties throughout the State.

DR. STANWOOD: Mr. Chairman, do I understand that this will be based on the same rules and regulations as the Medical Association? And is there an admittance fee? And is it wholly controlled by the ladies, or by the physicians of the different counties? Is the object a purely social one?

DR. POWELL: Social and educational, I should say. They try to act as closely in harmony with the principles and purposes of the Association as possible. It is made up entirely of the wives of the physicians of the county associations.

DR. STANWOOD: No one else is eligible.

DR. POWELL: No, sir, not at present.

DR. STANWOOD: I presume, then, that the Association, should it be formed, possibly might make rules and regulations for itself?

DR. POWELL: I should presume so, yes, sir.

DR. STANWOOD: I move you, Mr. Chairman, that a committee be appointed to make a report later. I do not make that motion with the idea of being on it myself, because I have no conception of the scope of the work they want to do, but I do make that motion to dispose of the question at the present time. It does not seem possible to act intelligently on the question at this time.

Dr. Stanwood's motion was seconded.

THE CHAIRMAN: I understand that the ladies attending this convention intend to hold a meeting at the parlors of the Lafayette Hotel between the hours of five and six.—I presume for the purpose of forming some such association; and I imagine that they would like to have some action taken by the House before that time.

DR. STANWOOD: Mr. Chairman, I would make the suggestion that that committee, if it be allowable, attend that meeting, so that they can there form some idea of what they want, and then report to us to-morrow, so that we may act understandingly.

DR. POWELL: Mr. Chairman, is not the real object mentioned in the petition? I understand all they ask the Association to do is to recognize them as an Association of the Daughters of Hygieia which shall have the approval of the Maine State Association. If that is true, I am wondering why we could not advise that such recognition be given them at this time.

DR. STANWOOD: Could the gentlemen state for a positive fact, that that is the only object of the petition?

DR. POWELL: The petition so states.

(The Chair reads the portion of the petition referred to.)

DR. WILLIAMS: Mr. Chairman, I have noticed for the past year or so in reading over the Medical Journal references to the Daughters of Hygieia in York County, and it appears to me that the thing would work out to be mighty fine. As it has happened, for the past fifteen years I have annually brought Mrs. Williams with me to the Maine Medical meeting, and, up to the last two or three years, she has had the pleasure of hanging about the hotels, and finding what amusement she could while I was attending the meetings. If this thing could be worked out so that the ladies might have an association, it would help the Maine Medical Association, because I think all the wives of the doctors would enjoy coming to something of that kind, and they would be more likely to come. If there is anything that the Maine Medical Association can do to help this matter along, I think it should be done.

DR. HILLS: Mr. Chairman, it seems to me they should be organized along the line of the Rebekahs in the Odd Fellows and the Eastern Star in the Masons, that is, under the protection of our Association. I think that the daughters ought to be eligible for membership as well. Some of the doctors have daughters eighteen years old and more, and, if they want to come to the meetings, I should suggest that they be taken in. If there is no motion pending, I move that we give our approval to the organization.

The pending motion being stated to the House by the Chair, it was voted that the House of Delegates give its approval to the formation of a State organization of the Daughters of Hygieia.

SECRETARY THOMPSON: You probably noticed in the last Journal that Dr. Spalding advocates that this Association shall pay, or help pay, the expenses of a certain number of doctors to the Summer camp at Plattsburg, New York, and I have here a letter from Dr. Dolloff, which I will read:

DR. J. A. SPALDING,
President Maine Medical Association,
Portland, Maine.

Dear Doctor:—I noticed in the latest number of the Journal of the Maine Medical Association that you recommend or suggest that the Association lend aid to certain physicians who may attend the Summer Military Training Camps, U. S. Army, at Plattsburg, N. Y.

I intend to attend that camp in July. I would be glad to accept aid from the Association on those conditions named.

In any case, I should be glad to impart any medical knowledge gained there to any society, county or state.

Very truly yours,

DAVID E. DOLLOFF.

THE SECRETARY: It seems to me, Mr. Chairman, we have no money in the treasury to aid certain men to go to that camp.

DR. WILLIAMS: Mr. Chairman, when we made up our budget last night there was mighty little left over, and under those conditions I make the motion that the matter lie on the table.

The motion was duly carried.

THE SECRETARY: I have here the report of the Council or from the Fourth District, Dr. Bunker. He has been called home by illness in his family, and asked me to read his report.

THE SECRETARY: I neglected to say last night that, as State Secretary, I have had no report from Waldo County whatsoever, and Dr. Bunker tells me that he has been unable to arouse any interest in the members in that county. He has tried to do this in various ways, having even offered to get a man to go down there and read a paper, but one member has said that one day would be agreeable to him, and another member has said that that day would not be agreeable to him, so they have been unable to come to any satisfactory conclusion with reference to a meeting. He told me that some of the members said that they were coming here to this meeting and pay me. If you see any such members, you may tell them that I refuse to accept any money from them, because the constitution states that members cannot pay directly to the Secretary of the State Association, unless they have never been members of any county society. Any member from Waldo County offering me his dues, I shall refuse to accept, so that the only way that Waldo County can come in will be through their paying their dues to their proper treasurer in Waldo County. Two years ago Waldo County was dropped for non-payment of dues, and was reported to the Maine Medical Association. Last year, the meeting being at Poland Spring, a good many members from that county wanted to come, and the only way they could come was by paying back dues, so last year it was revived and I got two reports. They sent one report, which was accepted. I wrote back and told them that they had another report to send in; so I really collected for two years. I think the thing that really revived them all last year was having the meeting at Poland Spring.

Dr. Bunker states that Kennebec County has had regular meetings, well attended, and that Somerset County has also held its regular meetings, with good attendance.

THE SECRETARY: Also I have here a letter from Seabury W. Allen, M. D., Beacon Street, Boston, whose name was sent to me by the Secretary of the Massachusetts Association as one of the delegates:

TO THE HOUSE OF DELEGATES,
Maine Medical Association,
Portland, Maine.

Gentlemen:—I greatly regret that work in Boston—impossible to leave—will prevent my attending the meeting of the Maine Medical Association. My recollections of pleasant and instructive hours spent with your Association in previous years, and of my many good friends in Maine, makes my inability to be present this year particularly irksome.

Won't you kindly express my regrets and my felicitations to my confrere, Dr. Bangs, and to the other members of the Association.

Cordially and regretfully yours,

SEABURY W. ALLEN.

DR. WILLIAMS: Mr. Chairman, as Councilor for the Third District, I report that in my district at present there are two societies, Knox and Sagadahoc. In Lincoln County the physicians are so badly scattered that they have joined the two other counties nearest them. In Knox County they hold their meetings every two months, and through the summer months they have men of national reputation in that section who read papers for them. During the winter months the members either read papers or report clinical cases. During the past year, perhaps, there has not been so much interest in the Knox County society as heretofore, but I think this lack of interest is merely temporary and that it will come back soon. In Sagadahoc County we hold our meetings four times a year, and I have been able to attend all of them. There has been more interest in Sagadahoc County the past year than for a long time. The membership is increasing, and I think practically every doctor in the county is a member of our Association.

DR. WHITTIER: Mr. Chairman, if it is in order, I would like to report for the First District now.

Members of the House of Delegates: As Councilor for the First District, I wish to report on the Counties of Cumberland and York.

The Cumberland County Association has now one hundred fifty-four members. The President is Dr. Spalding. The Secretary is Dr. Leighton. They have had four meetings during the year. These meetings were well attended. The first meeting was addressed by Dr. White of Boston, the second by Dr. Bandler, of New York, the third by Dr. Morse, of Boston, and the fourth by Dr. Carmichael, of Portland. The discussions were good, and there is a good degree of interest among the members of the Association.

The York County Association has at present seventy members. It has had four meetings during the year. The meetings have been held at different places in the county. The first meeting was held at Kennebunk Beach, the second at York Harbor, the third at Saco, and the fourth at South Berwick. The Secretary has spoken to me of the advantage for York County in holding them at

different places; that men had been drawn into the Association by this means who would not be drawn in, perhaps, by any other. I attended the meeting at South Berwick, and I was struck by the apparent benefit of the Association of having the Daughters of Hygieia connected with the County Association. The members spoke to me of the advantage, just as has been said at the meeting here today, of the associate organization. I think that the other points in connection with the work in York County have been brought out well in the paper of its Secretary, Dr. Jones, and I offer this as my report.

I will add that Rev. A. J. Torsleff, of Bangor, addressed the first meeting of the York County Association, Dr. W. B. Moulton, of Portland, the second meeting, Dr. H. H. Brock, of Portland, the third meeting, and Dr. J. F. Thompson, of Portland, the fourth meeting.

THE CHAIRMAN: Is the Councilor from the Second District here?

DR. PRATT: Mr. Chairman:

I have not prepared any written report for the Second District. I have been unable to attend any meetings in Androscoggin County, because I could not get the dates of the meetings from the Secretary. However, I think that Society is holding regular meetings and is in good condition. I attended one meeting of the Oxford County Society at Rumford Falls, and they had a very good meeting indeed. I should say that the Oxford County Society was in a prosperous condition. In Franklin, my own county, we have had four regular meetings, and the Society is in good condition. I think there are only one or two men in the county eligible to be members who are not members. The three societies in the Second District have signified their approval of a scheme for holding a joint meeting of the three county societies some time in the fall, probably at Lewiston.

THE CHAIRMAN: As you all know, in the Fifth District Dr. Webber has died. The senior member, Dr. Miner, I will call on for a report.

DR. MINER: Mr. Chairman and Gentlemen:

As a member of the House of Delegates from Washington County, I can report progress. Eighty-five per cent. of the physicians in the county are members of the Society in good standing. Dr. Mason, our Secretary, is gradually getting in the other fifteen per cent. Not much is, perhaps, expected down in Washington County, but I certainly can report, as one of the officers of the Association, that we have a live, active Association. Our plan is not the old plan in society work of papers, but rather case reports and clinical cases, and if a society is formed for the purpose of educating its members, this is surely the way to do it. For a man to bring his case in, place him on the table, examine him, and give the diagnosis, with his reasons, being questions by the other members of the Society, is certainly, to my mind, the proper way to get at it. At our meeting in Eastport, two or three weeks ago, we had twelve or more cases, patients actually brought in for examination, diagnosis and treatment; and the man who brought them in had to give the reason for the hope that was in him. He certainly got the grilling that you might expect from a lot of young members who are active to find out things. Perhaps there is no advantage in my stating these things here, but if it should be of any help to the other societies, I shall be very much pleased.

We meet three times a year. One of our meetings is devoted almost entirely to social matters. We perhaps have an outside man in to help us, and

perhaps not. We usually have a banquet. We do not levy a tax on all the members; it is entirely voluntary.

As regards the Councilor for our District, Dr. Webber, I am sure we are all very sorry to have to report his loss—a personal friend of the acting President and myself, a man loved in the city in which he lived, and admired throughout the county and State. He is a great loss to the profession, not only in a local way, but generally. Gentlemen, I thank you.

DR. MINER: Mr. Chairman, if it is not out of order, is any action to be taken here regarding the matter of the death of the Councilor from the Fifth District, Dr. Webber? Should any action be taken? Is it customary?

THE CHAIRMAN: I think that that matter comes under the report of the Necrology Committee, which will be presented in due time. I believe that has been the custom.

Voted to adjourn, subject to the call of the President.

MEETING OF THE HOUSE OF DELEGATES,

JUNE 8, 1916, 8.30 A. M.

The meeting was called to order by Vice-President Mason.

THE CHAIRMAN: We will now listen to the report of the Committee, Visitors to the Medical School of Maine.

REPORT OF THE VISITORS TO THE BOWDOIN MEDICAL SCHOOL.

Your Committee spent three days in May visiting all the departments of the Bowdoin Medical School, and we wish to express our appreciation of the many courtesies shown us by the Dean, Dr. Addison S. Thayer, at Portland, and the Assistant Dean, Dr. F. N. Whittier, at Brunswick, and the other members of the faculty whom it was our pleasure to meet.

Twelve members of the teaching faculty were consulted, eight lectures heard, four classes working in laboratories inspected, and three clinics witnessed. The clinics at the Children's Hospital, the Edward Mason Dispensary, and the Portland City Hospital, were especially interesting. At Brunswick, not only the Medical Building but all the other departments of Bowdoin College were visited, for they are all used by the medical students.

We wish to report the following interesting facts:

Resources: Bowdoin College has interest-bearing funds amounting to \$2,268,034.14, of which \$200,000 belongs to the Medical Department.

Equipment: The Medical Building at Brunswick is four stories high and contains two large lecture rooms, pathological laboratory, physiological laboratory, anatomical museum and dissecting room, which occupies the entire top floor. Of the fourteen buildings of Bowdoin College, medical students more especially use the Mary Frances Searles Science Building (for chemistry, biology, embryology, etc.) and Hubbard Hall, with its library of 111,000 volumes. In this building one room is devoted entirely to the use of medical students, and

here are found over 5,000 volumes, comprising the library of the Medical School of Maine, established in 1820. There is a very complete number of current medical journals. In Portland, an extensive medical library, the property of the Maine Medical Association, is also available to medical students at the Maine Eye and Ear Infirmary. In Portland, the Medical Building, on Chadwick Street, contains lecture rooms, bacteriological laboratory, pathological museum, and a room for instruction in minor surgery and work on the cadaver.

Clinical instructions are given at the Maine General Hospital, Maine Eye and Ear Infirmary, Portland City Hospital, Children's Hospital, Marine Hospital, Portland Tuberculosis Class, Female Orphan Asylum, St. Elizabeth's Orphan Asylum, Holy Innocents' Home, Maine School for the Deaf, Maine School for the Blind, and at the Edward Mason Dispensary, the last a gift to the Medical School by the late Hugh J. Chisholm and his wife. The Senior Class, also, takes clinical work at the Boston Lying-in Hospital.

Faculty and Course of Instruction: There are sixty teachers, six of whom are full time instructors. A course of four years of thirty-six weeks each, with over 4,000 hours of instruction, is given, which conforms to the requirements of the American Medical Association. Two years' attendance at a literary college is required as a preliminary training before beginning the medical course and the graduates are encouraged to take at least one year's internship in some standard hospital before beginning the practice of medicine. Of the twenty-two graduates in 1915, seven had literary degrees before taking the medical course, and twenty-one took internships.

Your Committee was especially impressed with the vast amount of clinical material available, the character of the student body, the marked personal interest in the students, and the welfare of the school shown by the different instructors, and the exceptional opportunities for laboratory work at the Science Building at Brunswick. Dr. Thayer's clinic in Medicine at the City Hospital, Dr. Abbott's clinic at the Children's Hospital and Dr. Davis' clinic on the Eye and Ear at the Dispensary, were very practical and interesting. We found Dr. Whittier instructing the third year men in the Wassermann reaction, and Dr. Lippincott, the second year men in water analysis.

It is our opinion that the Bowdoin Medical School is doing thorough practical work in the hands of instructors who are competent and enthusiastic. The standard is high in the Grade A Group of the American Medical Association classification. The one thing necessary to give the School an even higher standing is a larger interest-bearing fund, and your Committee would again recommend that the alumni of the School and the members of this Association use all possible influence to secure a larger income for the use of the School.

In our opinion, the Medical Department of Bowdoin College should have the unqualified endorsement of every member of the Maine Medical Association.

Signed: FRANK E. LESLIE,
FRANK E. SLEEPER,

THE CHAIRMAN: We will now listen to the report of the Councilor from the Sixth District.

DR. DICKISON: Mr. Chairman, I wish to say that the Sixth District is in an excellent condition. Up in Aroostook County we have all the members of the profession in the Society, and they hold meetings

there twice a year, which are well attended and very enthusiastic. In Piscataquis County the same condition prevails. The members of the profession are in with the exception of two, and they hold meetings three times a year, which are well attended. In Penobscot County, to which I have not made a visit, the condition is good. The membership is increasing over last year, and they are getting in a large percentage of the profession to the Society. They are holding very enthusiastic and nice meetings.

THE CHAIRMAN: We will now hear the report of the Nominating Committee.

DR. WILLIAMS: Mr. Chairman, last night, on looking over the nominations, I found that last year we had skipped a committee. There are a number of committees that have not reported, and I would ask that we have a meeting, at say two o'clock, or quarter of two, this afternoon, long enough to make that report, thus enabling us to get this missing committee in line. There are but two of the Nominating Committee present this morning. I am chairman of the Committee on Resolutions on Dr. King's death. I have left those resolutions to be copied, and, if I could submit them now by title, and give it to the Secretary, that would save making a report; or I will report them this afternoon. It will only take a few minutes.

THE CHAIRMAN: There are three papers on the program for this morning, then the report before the general session and the annual oration. It would be well if we could do some of our business this morning.

DR. WILLIAMS: As one of the Councilors examining the Treasurer's report, and Dr. Whittier's report, I would say that we found them correct and approved them.

DR. SYLVESTER: There is one thing left over from the past year on which it is necessary to report. A committee was appointed at Poland Spring, of which I was chairman, and on which were Dr. Robinson and Dr. Donovan, to present a fitting memorial to the Rickers; and I wish to report that the matter has not been carried out and to state the reason why. I will state that in the winter we investigated the cost and method of placing a bronze tablet on the wall of the State of Maine Building, as the Rickers suggested that would be agreeable to them, but Dr. Robinson wished something that would be appropriate from an artistic standpoint, and desired to personally interview some artist friends of his, and did so, with the result that he was very strongly in favor of our presenting a statue of "The American Medicine Man," by Cyrus Ballard. I did not see the Doctor, but we corresponded about it, and I told him that I doubted if we could raise

the money to do that. He then took it upon himself, with the result that the matter is in Dr. Robinson's hands at the present time. The year has run out, and your committee has not attended to its duty as yet.

THE CHAIRMAN: I think it is the intention of Dr. Robinson to report to the general meeting this afternoon.

DR. HARDY: Has there been any action on the place of next meeting?

THE CHAIRMAN: We will take up the question now of the place of next meeting. The matter is before the House.

DR. STANWOOD: Mr. Chairman, the question of the time and place of meeting is quite an important one to the physicians of the state, and due regard should be taken to all sections of the state, without any feeling in regard to certain locations. Now, from Oxford County, and I speak from that direction, it is far easier to come to Portland than anywhere else. The line of travel is such, the railroad facilities, everything of that kind, make it easier to come here; and I presume this may be true with reference to other sections of the state. Portland is the ideal city to hold our meetings in. There are but three available places, as it appears to me, to hold our meetings—Portland, Augusta and Bangor. Now I have talked with some of the Bangor men, and they do not seem to be so very enthusiastic about such a class of men coming into their city. Possibly Augusta desires the meeting, but there is no Augusta man here that I know of to speak for that city. I have talked with Dr. Hardy, and he says they would accept such a body of men in his town, but I do not know. It is a question for the House of Delegates to determine. I feel that a majority of the physicians of the state would rather come to Portland than anywhere else. Then, too, Cumberland is a large county, and York County is nearby, and it is easy for them. I will not make any suggestion myself.

DR. HARDY: Mr. Chairman, it seems to me that the proof of the pudding is the eating, and since I have been connected with the Maine Medical Association, apart from an occasional meeting such as we had last year, our most satisfactory meetings have been here in Portland. We get a larger attendance here than anywhere else, and I move that our next meeting be held in Portland.

• The motion of Dr. Hardy being duly seconded, it was voted to hold the next meeting in Portland.

THE CHAIRMAN: We might hear the report of the Committee on Resolutions:

DR. WILLIAMS: Mr. Chairman, and Gentlemen of the House: At a meeting of the House of Delegates of the Maine Medical Association, held on the 8th of June, 1916, the following resolutions concerning the sudden and lamented death of our late associate, Dr. Alfred King, of Portland, was offered:

Resolved, That in the sudden death of one who was famous as a surgeon throughout the state and beyond its borders, we have lost one who will leave a vacancy in ranks of surgical specialists of Maine that will be difficult to fill.

Resolved, That we would emphasize the devotion to his profession which he showed in his works and his writings, and above all, we would call attention to the remarkable love and devotion which he obtained on every side from his patients and the public generally. While we mourn the loss to our profession that the unexpected death of our comrade has produced amongst us, we will cherish kindly personality and genial manner in consultation and in practice.

Resolved, That these remarks of sympathy be forwarded to the bereaved widow, and duly spread on the records of this Association.

A. F. WILLIAMS,
H. B. MASON,
T. E. HARDY.

On motion, it was voted that the resolution as read be adopted.

THE CHAIRMAN: I would like to ask the chairman of the Nominating Committee what committee it was that was omitted?

DR. WILLIAMS: Visitors to the Insane Hospital; and I would ask that the House of Delegates meet as soon as the general session adjourns, and we will report on that.

THE CHAIRMAN: Very good, then we will call for the report of the Nominating Committee immediately upon the conclusion of the general session this morning.

On motion of Dr. Whittier, it was voted that the Committee on Nominations be asked to nominate a committee, consisting of two members, to visit the tuberculosis sanitoriums of the State.

Voted to adjourn.

FIRST GENERAL SESSION, MAINE MEDICAL ASSOCIATION

HELD AT

Portland, Maine, City Building, June 7, 1916.

The meeting was called to order by the President, Dr. E. E. Holt.
Invocation by Rev. Dr. Snowden of Portland.

THE PRESIDENT: The first paper on the program is by Dr. W. T. Rowe of Rumford, on "The Climate of Maine," and we will now listen to Dr. Rowe's paper.

DR. ROWE reads.

PRESIDENT HOLT: I wish to introduce a delegate from Massachusetts, Dr. Bangs, whom we would be glad to hear from. (Applause.)

DR. BANGS: Mr. President, and Members of the Maine Medical Society: With the recollection of the very delightful visit to your Society last year still fresh in my mind, it certainly gives me a great deal of pleasure to meet you again this morning. I bring to you greetings from the Massachusetts Medical Society, and to you, Mr. President, I bring the personal greetings and good will of our retiring President, Dr. Withington, who has held his office so gracefully and so successfully the past two years.

I congratulate you on the excellence of the program which you are presenting to your members during this session, and I have no doubt that it will be of great profit to all that are here. Coming from the meeting of the Massachusetts Medical Society which is convening at the present time, there is very little that I can say. Outside of the interest that was centered in the program to be presented, the vital interest at the meeting of the Councilors yesterday seemed to be centered in what might be done by that Society to defend the medical profession, the great body representing medical science, from the unjust aspersions that have been cast upon it; and I feel to-day that, from the action taken by that body yesterday, the whole body of the medical profession may feel a greater dignity, and that every State of the Union, through its medical societies, is indebted to the Massachusetts Medical Society for going on record and emphatically rebuking the unjust criticism that had been placed upon the medical society, even by those in high position. Gentlemen, I am very glad to meet you this morning. I wish that I had more of a message to bring to you; but I have no doubt your meeting will be of great interest and profit. (Applause.)

VICE PRESIDENT MASON in the Chair: We are very glad to have heard the greetings from the Massachusetts Medical Society, and I have no doubt that the Maine Society will extend to the Massachusetts Society very cordial reciprocal greetings through him.

The next paper on the program will be, "Duties of County Secretaries," by Dr. J. A. Spalding of Portland:

DR. SPALDING reads.

PRESIDENT HOLT: Mr. Chairman: As the plan is to attend Dr. King's funeral this afternoon, we can extend this session longer, resuming our session after the funeral. I can read my address this morning. I will now read what I have written on this subject. (Reads from address.)

I was visited by a delegation from the York County Daughters of Hygeia some time ago, and I told them that I saw no reason why they should not have an organization connected with the Maine Medical Association, because they were always invited to attend the meetings of the Maine Medical Association, and they had a right to form an organization to make that attendance more effective. This, properly, should go before the House of Delegates; but as I wanted to announce a meeting of the ladies at the Lafayette Hotel lower dining room at 5.30 this afternoon, I bring it up now.

THE CHAIRMAN: At the President's request I will read this paper to which he refers:

"To the Officers and Members of the Maine Medical Association:—

The York County Daughters of Hygeia earnestly desire to bring to the attention of the Maine Medical Association at this time the existence of their organization, and respectfully petition that it shall be recognized by the Maine Medical Association in order that it may have the approval and support of the highest medical body in Maine. Our hope is to extend the plan of co-operation throughout every county in this State, so that a statewide organization may be formed, to include the wives of all the members of the county medical societies. The Daughters of Hygeia wish to assist as far as possible in the promotion along educational and social lines of the purposes of the Maine Medical Association. The York County Daughters of Hygeia respectfully petition the Maine Medical Association, now assembled in their sixty-fourth annual meeting in Portland, for their approval of the proposed formation of a Maine State Association of Daughters of Hygeia, said organization to include all of the counties of Maine, and to be established in accordance with the principles already put in practice by the Daughters of Hygeia of York and Piscataquis Counties."

The President requests me to call a brief meeting of the House of Delegates, to take place immediately after this session, to consider this communication.

The next paper on the program is Scoliosis, by Dr. Abbott. Is he in the house?

In the absence of Dr. Abbott, it was voted to listen to the President's address at this time.

DR. HOLT delivers oration.

DR. WARREN: Mr. Chairman: I have the honor and privilege of introducing to the Association one of the most distinguished of our profession in the neighboring State of Connecticut. My acquaintance with him began nearly fifty years ago, when he was my neighbor across the street. I know of him as being one of the army surgeons who went across the Plains before the Civil War, when they shook rattlesnakes out of their boots every morning. He was a distinguished surgeon during the Civil War. He was for many years the leading physician internist of the city of Bridgeport and of the State of Connecticut. He was one of the founders of the Bridgeport Hospital. He is getting to be a young man now, although his hair is a little dusty, but he is just as vigorous as ever; and it gives me great pleasure, Mr. Chairman and gentlemen, to introduce to you my friend, Dr. George L. Porter of Connecticut, and I ask for him the privileges of the Association during its sessions. (Applause.)

DR. PORTER: Mr. Chairman, and members of the Maine Medical Society: This very gracious introduction was entirely unexpected. I feel in the condition of one of a party of tramps who were gathered about a fire by the wayside. Each was relating his particular experiences and the wonderful things he had seen in the course of his perigrinations. Finally, one who had listened until he was tired to the experiences that were being detailed, turned to another and said: "John, did you ever have delirium tremens?" The other answered that he had not. "Well," said the first, "you hain't seen nothing." (Applause.)

THE CHAIRMAN: Dr. Abbott is now present, and we will listen to his paper.

THE CHAIRMAN: In the absence of other gentlemen who were to deliver papers in the order, I will call for Dr. Leighton's paper, "The Medical Cult Absurdity."

DR. LEIGHTON reads.

Voted to adjourn to 3.45 P. M., in order that those who wish may attend the funeral of Dr. King.

Second General Session.

JUNE 7, 1916, 3.45 P. M.

Meeting called to order by Vice President Mason.

THE CHAIRMAN: I have the pleasure of introducing to the members of this Association Dr. John E. Weeks of New York City, who will deliver a paper upon Ophthalmology in Relation to General Medicine. (Applause.)

DR. WEEKS: Mr. Chairman and Gentlemen: I wish to express my thanks to the President, and to those associated with him, for their courtesy and the compliment they paid me of inviting me to address you. I have had the temerity to suggest and to receive, with the approval of Dr. Holt, the very important topic of Ophthalmology in Relation to General Medicine.

DR. WEEKS reads.

THE CHAIRMAN: We will now listen to Dr. Webster's paper on Asthma in Children.

DR. WEBSTER reads.

PRESIDENT HOLT: The House of Delegates will meet at 8.30 tomorrow morning, sharp. There are reports of several committees to be made, the report of the Nominating Committee, of the Chairman of the Visitors to the Medical School of Maine, delegate to the National Council, the Committee on Public Health and Public Policy, also the determination of the next place of meeting. Please be here at 8.30, so as not to delay the morning session. This meeting stands adjourned until nine o'clock tomorrow morning.

Adjourned,

Third General Session.

JUNE 8, 1916. 9 A. M.

The meeting was called to order by President Holt.

THE PRESIDENT: The first paper on the program this morning is "The Surgical Significance of Abdominal Contusions," by Dr. Jackson of Houlton.

DR. JACKSON reads.

PRESIDENT HOLT: The next paper on the program is, "Surgical Treatment of Infections of the Uro-genital Tract," by Dr. W. L. Cousins.

DR. COUSINS reads.

THE PRESIDENT: The next paper on the program is, "Eclampsia and Misfit Labor; Their Modern Management," Dr. S. P. Warren.

DR. WARREN reads.

Fourth General Session.

JUNE 8, 1916. 2 P. M.

The meeting was called to order by President Holt.

The Committee on Necrology, Dr. J. A. Spalding, made the following report:

REPORT OF THE NECROLOGIST, 1915-1916.

It is a pleasure to stand here to-day and to say that the list of deaths amongst us is this year shorter than usual. It is, however, a great grief to add, that we lament in that abbreviated list the names of three of our associates who are to be regarded as famous in Maine Medicine: Alfred King of Portland, Alfred Mitchell of Brunswick, and Stephen Elvaro Webber of Calais. Dr. Mitchell was celebrated as a genial medical practitioner, a cultured lecturer, a capable instructor in medicine, and maintainer and steady builder up of the Medical School of Maine. Dr. King was famous as a bold and daring surgeon, and thoughtful in medicine and its improvements. A careful notice of the career of Dr. Mitchell has already been printed in the Journal of the Association, and similar mention concerning the remarkable surgical development and progress of Dr. King will shortly appear. We regret, also, not to see amongst us to-day, the familiar and interesting personage of Dr. Webber of Calais, a man whose delightful presence and interesting suggestions were always welcome at our meetings. As an educator of the school children of Calais and the leader of medicine in Washington County, he will not soon be forgotten. His papers and his opinions were invariably of distinct value to us all.

The other departed members of our Association were of a more reserved nature than these especial three, some had not fully matured, but as part and parcel of our membership, they deserve remembrance.

The list of deceased members for the past year reads, alphabetically, as follows:

ALFRED KING, Portland.

FRANK MASON PUTNAM, Gardiner.

ALFRED MITCHELL, Brunswick.

HUGH FRANCIS QUINN, Bangor.

ARTHUR WILBUR LINCOLN, Gorham.

STEPHEN ELVARO WEBBER, Calais.

CHARLES JEWETT LINCOLN, Augusta.

ELLERY MAY WING, North Anson.

ALBERT FRANCIS MURCH, Westbrook.

JAMES A. SPALDING, Portland, *Necrologist.*

PRESIDENT HOLT: Any incidents in these men's lives that anyone remembers would be appropriate to incorporate into the record at this time. (No response.) As there does not seem to be any remarks in evidence, I might say a word on, "How to Live." I think that is quite as important as to consider those who have gone. In our national organization we always have different classes, and those particularly interested in a subject join that class; and it occurred to me that we were all interested in the subject "How to Live." The largest altruistic organization in the world, the Life Extension Institute, has recently issued a book entitled, "How to Live," which every physician should have. Now upon that subject everyone can contribute something, and in this class I shall take it upon myself to send to the ones who have

expressed a willingness to go into that class certain reprints and literature, and ask them to write out a paragraph how that particular paper affects them, and their experiences in regard to it; how it coincides with their views. Then next year we will try and have a paper on that subject with these views incorporated. I think it would be one of the most interesting papers we could have.

SECRETARY THOMPSON: The House of Delegates met Tuesday evening, the meeting before the annual session, at the Congress Square Hotel, with fifteen members present. Practically all the counties except Waldo County were represented. Waldo County seems to die and come to life occasionally. Two years ago they were not represented. Last year at Poland Spring they paid for two years. This year they have sent no report or money; so that they now stand as dropped from this Association as a county.

The regular routine work of the House of Delegates, listening to the reports of the Councilors and of the various committees, occurred, and is upon the records.

The officers elected for the ensuing year are as follows:

<i>President</i>	W. F. HART, Camden
<i>First Vice President</i>	G. R. CAMPBELL, Augusta
<i>Second Vice President</i>	R. W. WAKEFIELD, Bar Harbor
<i>Secretary and Treasurer</i>	J. B. THOMPSON, Bangor

BOARD OF COUNCILORS.

First District	F. N. WHITTIER, Brunswick
Second District	G. L. PRATT, Farmington
Third District	A. F. WILLIAMS, Phippsburg
Fourth District	L. G. BUNKER, Waterville
Fifth District	W. N. MINER, Calais
Sixth District	B. L. BRYANT, Bangor

COMMITTEES.

<i>Program.</i>	S. J. BEACH, Augusta
<i>Public Policy and Legislation.</i>	
D. A. ROBINSON, Bangor	T. E. HARDY, Waterville
<i>Venereal Diseases and Their Prevention.</i>	
F. N. WHITTIER, Brunswick	A. L. STANWOOD, Rumford
R. A. HOLLAND, Calais	
<i>Cancer.</i>	
C. R. BURR, Portland	D. B. CRAGIN, Waterville
JOHN STURGIS, Auburn	
<i>Necrology.</i>	
J. A. SPALDING, Portland	

To Represent the Maine Medical Association at the State Anti-Tuberculosis Meeting.

ESTES NICHOLS, Portland

Visitors to the Maine Medical School.

F. E. LESLIE, Andover

F. E. SLEEPER, Sabattus

Delegates to American Medical Association.

H. L. BARTLETT, Norway

F. Y. GILBERT, Portland, alternate

Delegate to National Council on Medical Education.

A. S. THAYER, Portland

Delegate to National Legislative Council.

ADAM P. LEIGHTON, Portland

Visitors to the Maine Insane Hospitals.

H. M. KNIGHT, Portland

H. K. STINSON, Togus

Chairman Committee on Public Health Among Women.

LUCINDA B. HATCH, Portland

Committee on Health and Public Inspection.

DORIS M. KRAUS, Augusta

LAURA NOYES, Rumford

BLANCHE M. MANSFIELD, Bangor

Visitors to the Maine Tubercular Sanitorium.

E. T. FLINT, Dover

F. W. MANN, Houlton

That completes the report of the House of Delegates.

The Councilors reported the county societies in very flourishing condition; that the majority of the counties have added new members; that the new members outnumber those lost through non-payment of dues and by death; that to-day the number of members in the Maine Medical Association is 678. A number of the members who pay directly have not yet paid; also losing Waldo County has cut down the number of members.

The Councilors have approved the finances and audited the books of the Treasurer and the books of the Committee on Venereal Diseases.

DR. GORDON: Mr. Chairman, I would like to ask what has been heard from "bleeding Waldo"; what reason, if any?

SECRETARY THOMPSON: The reason they give, that Dr. Bunker has imparted to me is, that they cannot seem to get together. He has been down there and has offered to get them a speaker from outside; but they cannot seem to agree on a date. One man says he can go one day, and another man says he cannot go on that day. He pleaded and worked hard, but has been unable to get them together. He said that some of the members there were going to pay me directly. Our constitution forbids that; so I cannot take any check from Waldo County members; it has got to come through the county itself, through their treasurer. If any member from Waldo County offers me a check as Treasurer of this Association, I shall be unable to receive it. They will either have to go into other counties or get together and

form their county society and pay their bills, in order to retain their membership in this Association.

DR. WARREN: Mr. Chairman, I would like to ask a question. We do not seem to know much about the running of this Association. It is done away from us. There are quite a number of questions that I know many would like to have answered. I would like to know what is going to become of the Journal this next year? Are we going to have a Journal? If so, why do we have it?

SECRETARY THOMPSON: You elect these delegates from your county societies; and, if you do not want the Journal, or you do not want this or that, you are supposed to instruct them before they come here to the general meeting at Portland, or wherever it may be; so that any business that any county wishes brought up at the Maine Medical meeting, here or elsewhere, may be brought before the House of Delegates.

DR. WARREN: Is it to be left as a part of the management of the Association that one of our county societies is to be dropped from the State Association?

SECRETARY THOMPSON: The American Medical Association states that each county must come into its State body; and I think the by-laws state that any county, or any member, is likely to be suspended for non-payment of dues.

DR. WARREN: We did not have any such trouble as that with the old organization, Mr. Secretary.

SECRETARY THOMPSON: You were not organized under the plan of the American Medical Association as I understand it.

DR. WARREN: Is there any particular advantage in being organized under that plan?

SECRETARY THOMPSON: I don't know.

DR. WARREN: I voice quite a large number of opinions of members of this Association that we would like to go back to the original organization which we had, adding to it the affiliation of the county societies. I do not want to talk very much about it now, but I am going to next year. I think by that time there will be a good many on our side.

DR. GORDON, after discussing subject under consideration, said: This other matter that Dr. Warren has alluded to has nothing to do with the question under discussion. I do not believe, however, that this Association wants to go back to the old methods.

DR. COUSINS: If I am in order, Mr. Chairman, I would like to make a suggestion. Dr. Warren has expressed more or less dissatis-

faction with the present management of the Maine Medical Association as conducted under the rules and regulations of the national society, claiming that there is not enough open discussion of affairs before the members. He is not alone in this. I have heard several complain of the same thing, and I would like to make a motion to this effect: that one hour shall be devoted by the House of Delegates sitting in open session at each meeting; so that any of the members present may make any suggestions to them that may come into their minds which shall be for the benefit of the Society, and that they take those suggestions into executive session, consider them, and report back to the Society. In that way the Society at large will have the opportunity of participating in the actions and the deliberations of that body, making it less of a close corporation, and giving us an opportunity to see whether our delegates are doing as we would like to have them do from the several counties. That will bring it before the people—before the Association—and then if they do not like it, and do not dare to say so, let them shut up. I do not believe there is any intention on the part of any of the delegates to run things: I do not believe there are any politics connected with it. I believe they do the best they can with what they have to do with. I do believe that the House of Delegates should convene at least once in open session to listen to the outside kicks.

PRESIDENT HOLT: I might say that Tuesday night we had a very lively meeting in the sun parlor of the Congress Square Hotel, and I think those meetings are always open.

DR. COUSINS: We do not know when they are being held.

PRESIDENT HOLT: The program says at eight o'clock Tuesday evening.

SECRETARY THOMPSON: They are held the evening before the annual session, at eight o'clock.

DR. COUSINS: Excuse me, but who is present except the delegates? I want it held in the open session, with all of you sitting up there in a row, and we can fire questions at you. We want to know what you are doing. I want to know; others want to know; and, what is more, we propose to know.

PRESIDENT HOLT: Wouldn't you, Dr. Cousins, limit that hour to the first session? After we begin our sessions here it would interfere with the work.

DR. COUSINS: Have it put in the regular program at certain hours.

Dr. Cousins' motion being seconded, was duly carried.

SECRETARY THOMPSON: The House of Delegates have brought this matter before you, and wishes to know what you want done.

THE CHAIRMAN: Has Dr. Robinson anything to say in regard to the Ricker memorial which should come before this assembly?

DR. ROBINSON: The committee appointed by the House of Delegates as to a memorial to be presented to Hiram Ricker & Sons for their reception to the Maine Medical Association last year, talked the thing over a long time before they came to any conclusion. At first it was thought that some memorial tablet might be written and placed in the hall there. Then the suggestion was made to the committee that that is what they do for people who are dead, and we did not want to do that. Then it was proposed that we find some statue of Hygeia, or Minerva, or some mythological worthy, allegorical or otherwise, and present it; but nothing of the kind has seemed to fill the bill. A suggestion was made that we purchase a painting to be hung in the art gallery. Then the objection came that they have very fine paintings there, the one having charge of it being an art connoisseur, and that nothing that could come within our means would be appropriate to hang there with those other pictures; and so we were at sea. I had a friend of mine who is interested in art look through Boston, and he could not find anything that seemed appropriate. Finally, one who was very much interested in it happened to see Darling's statue of The Medicine Man. I always had an idea that the Medicine Man was the one who beat the drums and made a loud noise, and practiced medicine that way; but the Medicine Man as understood by the intelligent Indians is one who invokes Divine aid for the help of the sick. That seemed to me a very appropriate thing. I found that a model of it could be obtained for two hundred and fifty or seventy-five dollars; so I sent out the notices that you have seen to 350 of those who were up there at the time. I got a quick response from 70 or 80, and since coming over here enough to bring it up to about 135, and the rest have said nothing. That is where the matter now stands.

On motion of Dr. Sawyer, it was voted to proceed to the election of a President.

DR. GORDON: Mr. Chairman, I would nominate, in behalf of Knox County, Dr. Hart of Camden. Dr. Hart has been a member of the Association for a long time, has been in practice in Camden for twenty-three or twenty-four years, and has been a reputable practitioner in every respect, so far as I have been able to learn. His friends from Knox County present him as their candidate, and I have no doubt it will be a very creditable thing to Knox County, and a very creditable thing to the Maine Medical Association.

DR. J. F. THOMPSON: Mr. President, as a classmate of Dr. Hart at Medical School, and with a knowledge of his standing as a physician and a man, I desire to second his nomination.

DR. DONOVAN: Mr. President and Gentlemen: It is to me a source of great pleasure to be able to second the motion made by Dr. Gordon in nominating Dr. Hart President of our Maine Medical Association. I take special pleasure in seconding that motion, because I realize that the President of this important Association should be a man of integrity, high personal character, a good business man, full of energy and zeal, all of which I believe you will find amply supplied in Dr. Hart as President of this Association.

THE CHAIRMAN: Dr. Hart has been nominated as the next President of the Maine Medical Association for the coming year, and the nomination has been seconded. All those in favor will signify it by a rising vote.

DR. GORDON: Mr. Chairman, I believe we are obliged to ballot. I move that the Secretary be authorized to cast the ballot of the Association for Dr. Hart.

Dr. Gordon's motion being duly seconded, was carried, and the Secretary cast the ballot of the Association for Dr. Hart as President for the ensuing year, and he was duly declared elected.

DR. HART: Mr. President and Gentlemen of the State Medical Association: I will not detain you with any speech. You have heard many speeches since we have been here during this session. I wish, however, to thank you most sincerely for the honor that you have conferred upon me, and I trust through me to Knox County, in electing me to this office. I have always been benefited by my attendance at the meetings of this Association. If, in return for the good that I have received, I can succeed in presiding as your officer at the future sessions for the coming year, I shall be very much gratified, and I will endeavor to serve you to the best of my ability. I thank you very kindly. (Applause.)

PRESIDENT HOLT: We always reserve the best for the last. We will now listen to the annual oration, "Digitalis Therapy in Cardiac Disease," by F. S. Meara of New York City.

DR. MEARA: Mr. President and Gentlemen: I wish first to express my keen appreciation of the honor you have conferred upon me by asking me to address you this afternoon. I must confess that I approach the task with no little trepidation after the testimony that I have heard of the critical capacity of this audience, and after the long line of illustrious predecessors in this honor. I am sure those of you

who can project yourselves into my position will appreciate that the choice of the subject Cardiac Therapy was made by me with almost Promethean forethought as peculiarly important at this present moment.

DR. MEARA reads.

On motion of Dr. H. F. Twitchell, a rising vote of thanks was extended to Dr. Meara for his clear, concise and careful paper.

The Association also extended a rising vote of thanks to the Program Committee and the Cumberland County Committee for the excellent program enjoyed at this meeting.

Voted to adjourn.

BULLETIN NO. 7

Why Should Physicians Read the Advertisements?

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FIRST—The State Medical Journal keeps them informed about physician's supplies, and where to purchase them. It saves them money.

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SIXTH—Every physician who is a member of his County Medical Society is a joint owner in his State Medical Journal. He has a personal interest in its success. If he reads and answers the advertisements they will be repeated. Advertisements supply the revenue for a larger and better Medical Journal. Self-interest should prompt every physician to read his own State Medical Journal through.

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MORAL:—Read the advertisements in this issue, answer some of them, and let the advertisers know you saw them in this Journal.

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Parke, Davis & Co. announce the publication of their 1916 price list, which is said to be an improvement in many respects over any previous issue of this valuable catalogue. The book is divided into three parts: Part 1—Fluid Extracts, Pills, Elixirs, Syrups, Tablets, etc.; Part 2—Specialties into which have been merged Special Preparations; Part 3—Biological Products. The nomenclature of the U. S. P., Ninth Revision, has been adopted in the new list, the term "milliliter" ("mil") being substituted for the cumbersome "cubic centimeter". The standards of the new U. S. P. applying to fluid, solid and powdered extracts and tinctures, together with the doses, have also been adopted. All Harrison-act items (products that must be ordered on official order forms) are clearly distinguished. Its amplitude, its handy classification, its comprehensive general index, all serve to make the new catalogue a reference book of the utmost value to medical practitioners. We understand that the book will be ready for distribution about August 1st. Physicians are advised to write for a copy, addressing their requests to Parke, Davis & Co., Detroit, Mich.

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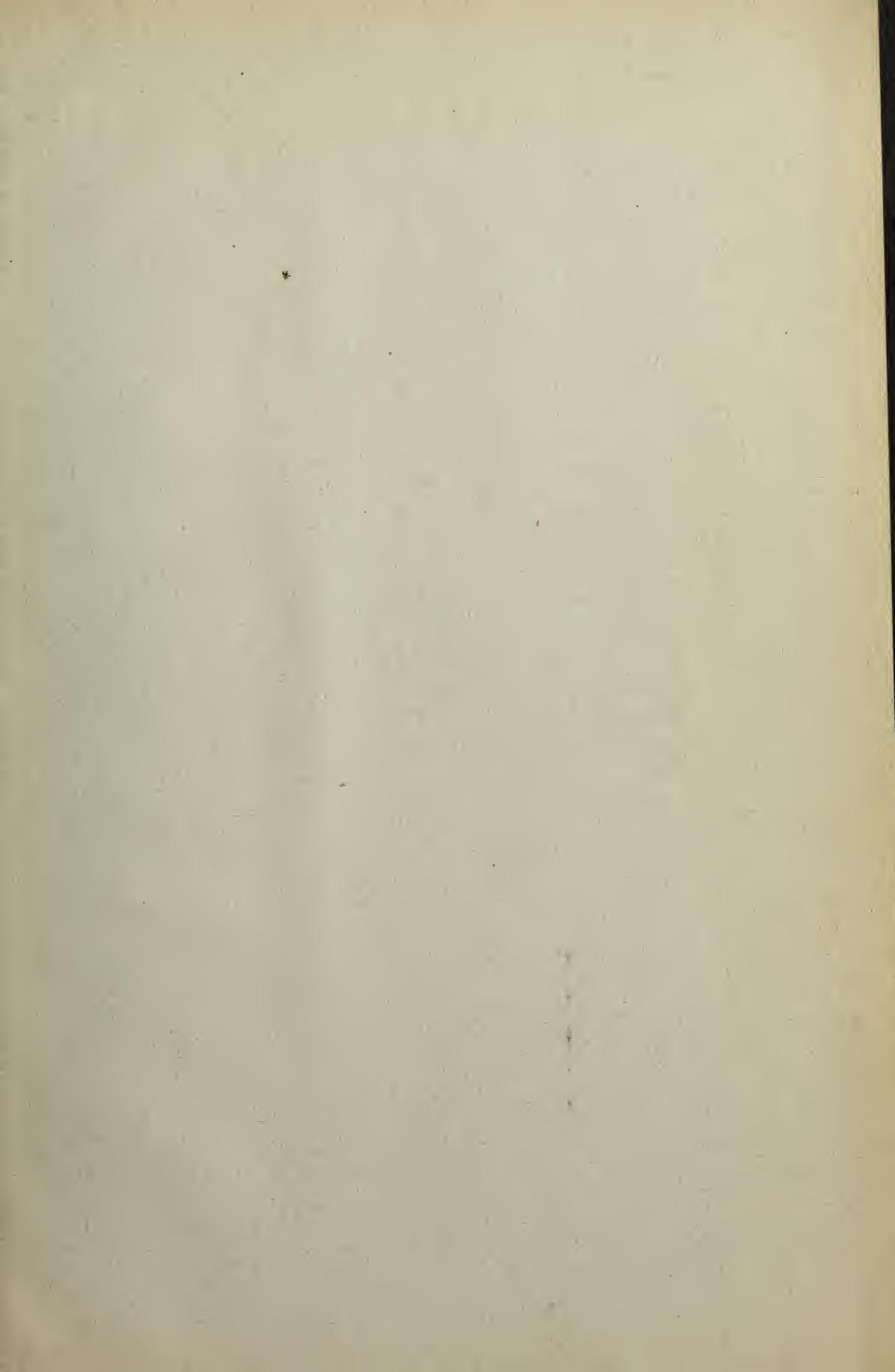
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